



FRIDAY, SEPTEMBER 26, 1879.

Locomotive Engines—Great Southern & Western Railway, of Ireland.

We give this week engravings of two express engines built at the Inchicore Works of this Company, and which will be of interest to American readers. These engravings, with two others which will be published next week, are copied from *The Engineer*. Description of them will be reserved until then.

Contributions.

Some Buffalo Railroad Notes—Straws from the Roadmasters' Convention.

TO THE EDITOR OF THE RAILROAD GAZETTE:

The crash of falling buildings on Exchange street, near the New York Central & Harlem River Railroad draws a crowd of curious people to the spot, who anxiously inquire

pleted a tasteful brick passenger depot on the corner of Michigan and Exchange streets, with a shed extending 400 feet east. This depot also accommodates trains on the new road just opened to Lockport. The New York, Lake Erie & Western has a very large elevator (capacity, 1,000,000 bushels) nearly completed at this port, and it looks as though this road was in a fair way to get its full share of traffic, the efforts of other roads to the contrary notwithstanding.

In looking over the shops, yards and premises of the various roads terminating here, it is noticeable that a great deal of iron in various shapes is lying around loose. A general policing of any of the yards here would not only improve the looks of the premises, but the receipts from scrap might be greatly augmented.

Although the business here is immense, one looks in vain for such improvements in the line of frogs, switches and track-fixtures, as are being plentifully adopted at other points about the country.

Although it is but a short time since the adjournment of the Road-Masters' Convention, it is evident that there is much dissatisfaction on the part of some, who could not prevail on the convention to swallow their ideas *in toto*. It is the height of nonsense for any one to expect a body of thinking men to acquiesce in every view that may be presented. It is an old saying that every crow thinks her young as white as

The Duties and Responsibilities of Road-Masters.

[Address delivered at the second annual convention of the International Road-Masters' Association at Niagara Falls, Sept. 11, 1879, by Charles Latimer, Chief Engineer of the Atlantic & Great Western Railroad.]

My friends and gentlemen of the International Road-Masters' Convention:

You have done me a great honor in asking me to address you on this occasion, an honor which I appreciate greatly, for I have a sympathy in your work, a fellowship with you in your career, that makes me feel as a brother craftsman in bonds as close as that of the fraternities, and above all, in that bond of humanity which unites one with you in your present and future.

I have been interested in your organization from its incipency, and rejoice with you and congratulate you that you have attained your desired object, and have now come together as the International Road-Masters' Convention.

I bespeak for you a most useful career, beneficial alike to you as men and to the railroad companies whom you serve.

There is nothing like personal discussions and comparisons for bringing forth the highest and best results in our work.

The man who plods along unmindful of his neighbor, satisfied with himself and his own individual doings, will eventually awake to find his neighbors, who have been comparing notes, a long way in advance. The man who works for himself, and conceals from the world the little that his brain produces, is an "individual."

He who enlarges unselfishly the domain of his own and his neighbor's intelligence is a benefactor.

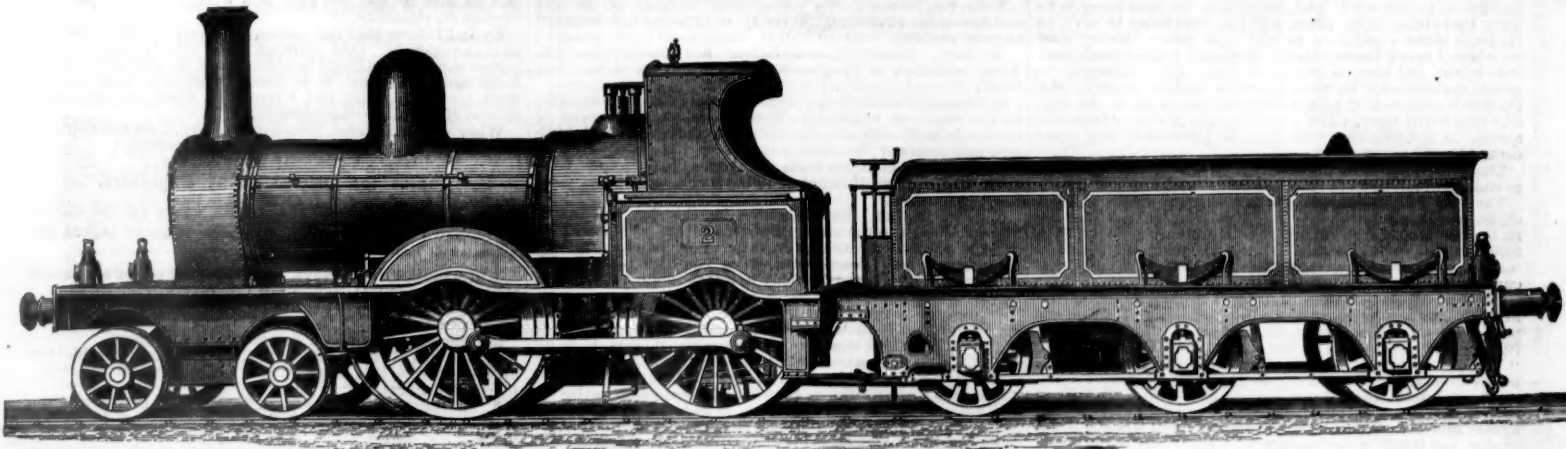
The world has too many "individuals," too few bene-

LOCOMOTIVE ENGINES, GREAT SOUTHERN & WESTERN RAILWAY, OF IRELAND.

Mr. McDonnell, Engineer, Inchicore.



Express Passenger Engine.



Small Passenger Engine, with Leading Bogie.

the cause of all this smashing, and when they are told that it is to make room for a railroad, they rub the dust and mortar out of their eyes and seem to marvel that a railroad has so much power. But it is an indication that railroad power is growing, even in the Empire State. But, even the mightiest of the mighty are sometimes arrested in their mad career by an insignificant bantling, whose process of incubation had not reached that state which enables the infant bird to leave his prison, flap his wings, and proclaim loudly to the world that he had an existence. In other words, before the chicken was hatched he had the power to worry the "cock of the walk."

Some time ago the City of Buffalo granted a charter to the "Buffalo City Cross-Town Railroad Company" to build a road across the city, but the company failed to complete the road, and refused to surrender the charter to the city, and the matter is now before the courts. The New York Central, in building its cross-town road, must cross the old road, but there is an injunction in the way. The Central is, however, tearing down and building up, expecting at an early day to surmount the difficulty. It has completed its road for a short distance on each side of the disputed point, or up to the old track on both sides. It is now working at intermediate points, pending the decision of the court. If that is too long delayed, it is possible there may be a sudden flank movement at no distant day.

The New York, Lake Erie & Western has recently com-

any bird's in the country, and most every one regards his ideas as particularly sound, and there are many who expect every one else to see them in the same light. One of the best things in this world is to be open to conviction, and unless a man is prepared to surrender his belief, when the evidence that he is wrong is overwhelming, he had best never attend a convention nor engage in any argument. The object of the Roadmasters' Convention was to get hold of all the wrongs as far as possible, and set them aright. If every one's ideas were sound, there would be no need of an association; but as such is not the case, it is the prime object of the association at its conventions to point out the errors of its members and suggest a remedy. There appears to be some who consider that the convention was run in the interest of some leading roads, whose officers have an interest in certain patent rights. This impression may be attributed to jealousy and eating too much pork.

Present indications are that the association may have some trouble from dissatisfied patent-right men and some members whose ideas were not as readily swallowed by the convention as they were expected to be. Judicious management will, however, set things to rights; and as they are evils similar to those under which the Master Mechanics and Car-Builders' associations have suffered, their advice as to the proper management of patent-right men might be of service to the Road-Masters' Association.

WM. S. HUNTINGTON.

factors. The benefactors seek the good of others. The individual seeks the advancement of self and selfish ends.

Yours is the sphere of benefaction, and, notwithstanding this, you are despotic rulers, for you rule the land with a rod of iron, but your rod goes hand in hand with civilization. Yours is the work of no charlatan. Yours is not the sphere of rings and conspiracies, although sometimes their victims. Yours is the sphere of hardy, honest, earnest, everlasting toil of mind and body. Yours is the sphere of sleepless, eternal vigilance, the only price of safety. Upon your faithfulness depends the lives of millions of our fellow-citizens, to say nothing of their property.

Yours is emphatically the sphere of benefaction.

In all titles of nobility, let me have one that says not that I am of this place or of that place, but I am of this trade or that profession. Let it be that I do something, not that I am merely of something. I rejoice with you in your work and your title.

How little the world knows of your trials and responsibility! How few know of your anxious, watchful nights on the dark and dangerous paths of the innumerable trains, with their wonderful iron horses, whose wheels, like burning flame, dashing at frightful rapidity night and day over the gossamer iron threads, shake the very earth with their tread, indeed seeming to fly like myriads of shooting stars over the mountains and plains, and from shore to shore.

Do the millions who sleep so quietly and sweetly in their downy beds realize the nature of that faithful guardianship which you exercise over their precious freights? We laud the heroes of the battle-field, and poets have sung their praises; but who has sung the poems of the faithful trackman, who upon the dark, stormy, wintry night, the thermometer sometimes thirty degrees below zero, perchance walked his ten miles back and forth examining every rail and joint, and bridge and bank? How often has his lantern

flashed in front of trains thundering down with furious rate to destruction; but for the faithful night track-watch, who has signalled the danger that glared in a burned bridge or washed-out track just in time to stop them from the jaws of death! Who of you but that has witnessed this? Who, indeed, of you that has not been one of those very watchmen, and been the blessed means of saving the bodies of your fellow-men.

The responsibility and importance of the position of trackman, and especially the track foreman, is not appreciated generally.

It is considered a position that any workman may fill; but such is a mistake; it requires the judgment to select men; to govern them it requires the honesty and fidelity of a bank officer; it requires intelligence of a high order; it requires perfect sobriety. The position of the Foreman is the school of the Roadmaster.

Some think that any laborer is fit for a trackman. This is a mistake. The track hand requires intelligence, sobriety and the fidelity of the watchman. Do we not anxiously look to him with entire reliance, and say, "Watchman, what of the night?" The position of trackman is the school of the Foreman of Section.

I have been long associated with railroad men, and been especially closely identified with trackmen, and I can say most unqualifiedly that there is no class of men more industrious or more faithful to their trust. And if there is a case of distress or an accident, what class of men are more ready to open their hearts and meagre purses to assist? For when the yellow fever swept the Southwest the difficulty was to prevent our men from giving more than they were able.

One year ago in this month, the most terrible rain-storm that ever visited this country crossed the track of the Atlantic & Great Western Railroad in a breadth of one hundred miles. It seemed as if the fountain of the great deep had broken up. It brings vividly to my mind the recollections of a dark morning when I was but a babe playing alone in an upper room. It was the earliest remembered event of my life. My mother passed me quickly and knelt at the window, praying only as a mother can pray. I crept up and looked over her shoulder; a flood was there; the Potomac River with heavy timbers and ice floating past, and the canal roaring like the sea in front of the house. I saw one despairing face and the uplifted hands of a drowning man in the broken canal lock.

I think of the water-floods and pray that when the flood comes I may always have such faithful watchmen as blessed the Atlantic & Great Western Railroad in our great flood. They were all out everywhere, watching, signalling and warning. Many narrow escapes there were, so close to death; but all did not escape. A foreman waded through water to warn a train at the station. His work was well done. "Do not proceed," he said; but the engineer said, "We will go slowly." But there was no time for a mother's prayer for poor Brown and his fireman as they dashed into a surging stream under a broken arch. A number found a watery grave that fatal morning of Sept. 13.

When we consider the responsibilities of our work, ought we not to feel as if it were God's we were doing? Indeed, I believe that the trackman in his duty does feel that he is doing God's duty. He seems to feel as if it were His railroad that he was protecting, and rise above the petty trifles of life. We are indeed working his vineyard, and it is true that we are doing His work. We are His creatures; we owe our allegiance to Him; and he who acknowledges this and acts up to it best is the successful man. You are God's watchmen.

When we consider this how important it is that we should study the rule of thoroughness. How important that we should strive for the best and highest.

In the first place, we should strive for the most perfect organization in our work; and, to do this, the first thing is to have everything in its place, and the first thing to have in its place is the *right man in the right place*. Every man to whom I speak knows that if he should possess transcendent talent and have a parcel of lazy, idle assistants, he would undoubtedly be pronounced a failure shortly. So, therefore, selection of proper help and assistants is the first and important duty. The man who fails in this or lacks the quality of judging men will never be successful, and most certainly will never excel.

The next thing after the selection of men is to treat them as such, and act so as to retain them as brethren.

The man who discharges another without cause or for a slight offence commits a *crime against humanity*, and is not fit to command. A drunkard is unfit for railroad work. A foreman who curses his men is unfit to command them. I may be pardoned for giving an illustration of the crime of cursing men, from my own history.

I was an officer of a ship. I ordered a sailor to move rapidly, and, as he was going down the hatchway, I cursed the poor man—old enough to be my father. I can see his pitiful face now, turned up to my angry face, seeming to say, "You can abuse me; I dare not answer you, for you have power to have me flogged or put in irons." I mused a moment, standing where I saw him vanish below. I said to myself, "I am a mean wretch; I will never curse a man again; more, I will never swear again; I will always speak kindly, but firmly when necessary; I will exact only proper obedience." I turned aside to my duty; I felt as if a load had been lifted from my shoulders. That was thirty years ago. I have never used an oath since.

That was the turning point of my life in some respects. I gained the entire respect of the crew, and it was a great lesson in the art of governing—it was self-control, self-respect; it was the respect of humanity learned.

Organizations should be economical. We have no right to a surplus man in our work. It is not just, nor is it conducive to success or discipline; it is bad for man and company. Good organization requires good discipline, and the question arises, What is good discipline?

Good discipline is not a fearful obedience. It is not the work of the wheels of a Juggernaut, which decapitates heads—that is, gives a summary discharge and leaves sorrowing families helpless and miserable and crushed for an offence which the ruler may commit with impunity. Discipline is not the work of a cat-o-nine tails, of a brig, of a pillory, of being tied up by the thumbs, or the sweat-box. I was on a ship where hundreds of lashes of the rope's end were served out daily to a ship's crew far more regularly than the grog ration (both happily now abolished). Young men cursed those old enough to be their grandfathers. This was by some called discipline. Was it such? No! There was but a smoldering volcano under that iron rule. Discipline is not blind, ignorant obedience. What then is discipline? It is decency and order founded upon the mutual respect of the governor and the governed for each other, each acknowledging the providence of their position; each doing his duty, not as man pleases, but as unto God. True discipline is true harmony.

Tyranny can never be discipline. A great enemy to discipline and harmony is overweening ambition. Ambition to excel is laudable; ambition to take another's place is mean. The very moment that a desire enters into the heart of a man to supplant another, good-bye to harmony; welcome, strife and contention. When evil-speaking of officers of superiors in position—indeed, of each other—begins, harmony and discipline fail. Discipline is of the mind; of the heart.

When the question was up before Congress years ago, whether flogging should be abolished in the naval service or not, a distinguished Senator asked me to give him my opinion, founded upon my naval experience. I answered that I was entirely in favor of the abolition of flogging. To my surprise his answer was: "You are in error; flogging is as essential on ship-board as on the plantations in the South." My answer to that was: "I consider flogging essential to neither in order to maintain discipline." Look at the Senate of the United States, where the pistol and the cane were used with menacing and threatening words. Why is discipline not maintained there? I say discipline is of the mind; is of the heart. The man who cannot maintain discipline by his example, by his words, by his spirit, can never do so even though he could flog, imprison, or even hang up men to the yard arm *ad libitum*. All are not commanders, and he who would command must first learn to obey.

I may go farther and say, no man should govern, or rather command, his fellow-man until he has learned the art of governing himself. When men shall have learned to govern themselves and to obey the law, then shall that government be established—the perfection of government, that which governs least, the law of which is love.

But to attain the *thorough*, there are other things besides good organization and discipline. Railroad business preeminently requires systematic work. There are good systems and bad systems and mediocre system—neither good or bad. What we want is the highest, the noblest and the best. For that we must strive, earnestly, faithfully, sleeplessly, if necessary, until attained.

A complete and perfect system is that of doing our duty in the most economical, workmanlike and rapid manner.

I have had occasion to remark before to some of you, that if a road-master possessed nine qualities of ten required, and that lacking quality was *economy*, his chances for promotion or success in railroad business would be less than if he lacked several of the other nine. When I speak of *economy*, I mean economy in its broadest sense, not that pretense which runs the road to the verge of accident and your fellow-man to the verge of starvation for the name of an economist.

One instance: Suppose a road-master had all of his crossties out and lying along the road in large piles in the winter, and should fail to distribute them when cars were plenty and freight business light, and then should call for cars when cars were scarce and freight plenty; would you call such a man economical? Would you call him systematic?

A complete system involves many and various questions. Perfection is never attained, but faithfulness brings us nearer and nearer until we attain the crown.

We should never cease reaching out for greater excellence in our work.

Yours is the school of promotion. A road-master has a wide field for observation and exercise of versatility of talent and rapidity of execution as well as of thought. Some of our best and ablest superintendents have risen from road-masters.

I will merely cite the promotions of one road—and a noble road it is, too—the Lake Shore & Michigan Southern.

P. D. Cooper, road-master, to Superintendent of Division, to Assistant Superintendent of Lake Shore & Michigan Southern, to General Superintendent of the Atlantic & Great Western Railroad.

J. H. Parsons,
C. B. Couch,
P. F. Blodgett,
H. Amaden,
P. P. Wright,
H. M. Wright,

all of whom have been promoted from road-masters to superintendents.

Your position and work engenders rapidity of thought and execution of design. Fertility of expedient is essential to your position.

Trickery, chicanery, speculations are foreign to you. Your ambition is to do your duty, and excel in your work.

No financial subtlety is yours. To others in devious paths be the work of wrecking. Yours to clear the wrecks of railroads, and, with all your skill and kindly aid, watchfulness and economy, to avoid them.

In this broad land, all fields are yours, in common with every citizen; but if honor or riches increase, set not your heart upon them.

Who knows but I may be addressing this day the future highest officers in the land? But remember, as you rise to more responsible positions, forget not your humble, faithful companions and friends, with whom you have battled with storm and wreck through many a weary hour of winter's night.

If promotion comes slow to you, be not over-anxious, but say, Perchance I am less deserving than I think, and forget not those immortal words of Shakespeare: "There is a divinity which shapes our ends, rough-hew them as we may," and never forget that promotion which is true and lasting is the reward of faithfulness, even faithfulness unto death.

What a world of meaning there is in the word *faithfulness*! It means true devotion to our duty; it means that we should be our brother's keeper—that we should be teachable and ready to teach others; it means that we should be faithful stewards of the interests both of men and things under our charge. And unquestionably the true and safe road to advancement is to avoid speculations or risks. Let us keep our eye single and devoted to the interests entrusted to us. The importance of teachableness is a paramount necessity for success.

The obstinate man, the egotistical man, is not the highest type of the railroad man. Indeed, these faults, if uncorrected, lead many astray, and lay them on the shelf to chew the cud of bitter disappointment.

For instance, we sometimes find men who ridicule science, ignore the work of the scientific man which gives him the knowledge to practice. Thus you hear it sometimes said: "What is the use of calculated tables, their formulae, these particular instructions?"

These men forget that the mathematician has worked out the problems, and given the rule of practice to one, who has handed it to another, and so on until it is even supposed that the practice comes first and the theory afterward. This one will say: "I want no rule for putting in a frog or switch; I want no level to teach me to put up my tracks; I want no instrument to give me direction of a curve or line; I need no instrument to tell me how much I must elevate my curves; my eye is better than them all. But it will be observed that he who allies science and practice in his work will soon distance the one who holds either to the one or the other alone.

The universe is governed by mathematical laws, and it is the glory of the student to unravel them. Kepler, the great astronomer, when he had calculated with precision the laws of the planetary system, was filled with devotion and gratitude at his ability, as he said, "to think the mind of God."

Our work is the result of close mathematical study in others perchance, and yet we are all but babes and sucklings. We can none rejoice or boast over another. But yet let us not ignore laws or science, but work hand in hand with them.

He who can practically do is the useful man. He who can plan and do is doubly useful. He who uses the plan to guide

his practice is better than he who tries the one alone. Cultivate all of the gifts, and then promotion comes, with greater fields of usefulness.

How often I have pondered upon the thought how free our busy, earnest worker is from the isms and vagaries of the age. You have no time to listen to tales of mistakes of Moses. You are too busy trying to avoid the mistakes which you might fall into if you should prove faithless to your trust. I tremble at the responsibilities which rest upon me and upon you all, lest, with all our care, with all our watchfulness, we should fail in some point least expected. We are all from our homes, from our work, and yet what anxious thoughts do we cast back to our place of business, and feel a load upon us lest anything should go wrong in our absence from our neglect.

I have but glanced at a few points of importance which tend to the success of our work. I have said that our organization should be complete, our discipline of the highest order; that our system should be perfect, and in all things we should be faithful. There is one thing yet that is needed to add grace and beauty to the whole, and that is a reliance upon Divine Providence to guide us in all that we do. I know it is not the custom of conventions and societies to touch upon the subject of Providence. It is that of some to ignore religion; but if I understand the spirit of the working man, he is not one of those. And why should we not take God in all our work, both of the road and of our meeting? He is our maker, our preserver, our guide. I say, let us take our religion into every spike we drive, every railroad-tie we lay, every man we employ, every man we discharge; into every thought, word and deed.

The man who says we cannot take God into our work is an enemy to our success.

I once had a very responsible position upon a road, and I refused to permit an excursion train to be run upon Sunday, and to permit the section foreman to serve out whisky to his men and make them pay for it. My superior officers, acting under the force of the acting President of the road, took me to task and begged me to recall my action, saying it is impossible to carry out religious principles upon a railroad, adding that he was very anxious for me to remain. I could have obeyed the order in the matter of running the trains, but I positively refused to recede from the second, and left the road. The idea that it is impossible to carry religion upon a railroad has been frequently advanced, but never by religious men.

Our country stands to-day with a Sabbath-breaking people upon our railroads, having wandered far from the teachings and practice of our forefathers. Sunday is made the clearing up day of railroads. More trains are run on than day than any other. It is the grand excursion day; the roads are crowded with trains. I am pleased to see one railroad manager, Mr. Hickson, of the Grand Trunk Railroad, stand up against this practice. His answers to petitions to run Sunday trains for excursions is pertinent: "I am sure that running excursions on this railroad will be of no profit to it, and I think it will be of no profit to you." What wonder that the chapters of accidents are numerous? Men who have forced ten days into six are required to work possibly two more on the seventh. The engineer, his eyes heavy with sleep and fatigue, closes them at the moment when to do so is death to his living freight. Forced to be absent from home and its ennobling influences, demoralization and dissipation, crimes and consequent accidents and loss ensue.

Here let us stand! Let us set our faces and influence against the breaking of the Sabbath-day. Let no work be done, either upon track or upon road upon that day, as far as our influence can prevent. Let the railroad track be as quiet and undisturbed on Sunday as our church-yards, so that every man may have the privilege of enjoying his home with his family on that day, as he ought; that every rail and tie, and bridge, and rod, and wheel, and machine may recover its elasticity.

So do I believe that our nation will receive such a blessing as it can contain. Our railroad men will be happier and better men, and railroad accidents will be almost banished from our knowledge. It is your opportunity and mine to work for this blessing, and I trust that it may be our happiness to aid in its accomplishment.

Wishing you a useful, prosperous career, both individually and collectively, I thank you for your attention.

Topics for Discussion by Engineers.

The American Society of Civil Engineers has published the following list of topics on which original papers are invited:

1. Topographical surveys, and the laying out of towns and the most economical divisions of property.
2. Instruments and methods of exact measurement for land surveys.
3. Trigonometrical and Astronomical surveys.
4. Systems of road-making and maintenance suitable for (a) large towns and heavy traffic; (b) suburban districts; (c) rural districts.
5. The sustaining power of different kinds of soils and the conditions which produce failure of foundations by settlement.
6. The weight which can be supported by different classes of masonry.
7. The preservation of masonry structures.
8. The manufacture of cements and methods of testing their strength.
9. The proportions of cementing and ineft materials in mortars.
10. The preservation of timber used in construction.
11. The strength, durability and characteristics of various timbers.
12. The manufacture of iron and steel in America. Combinations of materials, methods employed and plant used.
13. The properties and laws of cast iron, wrought iron, steel and other metals used in construction.
14. The effect of constant or long-continued vibration on metals used in construction.
15. The design, generally, of iron bridges of large span.
16. The construction and operation of drawbridges of large span.
17. Testing machines and experiments on the strength of materials and structures.
18. Appliances and methods of rock boring and blasting.
19. Sub-aqueous tunnels. Their design and construction.
20. The flow of water in channels of various kinds, and the modes of determining the discharge by experiment. Also the discharge over weirs and through orifices.
21. The loss of water in flowing in open channels.
22. The relations of rain-fall, character of soil, and flow of streams; effect of wooded and of cleared and cultivated land on the flow of streams.
23. The sources of systems of water-supply for towns, including storage of surface water, open wells, tube wells, gathering galleries and ground water obtained from different geological strata.
24. Systems of water-supply suitable for small communities, whether separately or cooperatively.
25. The detection and prevention of waste of water in towns.
26. The design, construction and cost of operation of pumping engines, and mode of computing duty.

27. The history of the manufacture of cast iron water pipes in America.
28. The strength and dimensions of cast-iron pipe and of wrought-iron pipe for water supply. Forms of joints for water pipe.
29. Durability and cost of water pipe of cast iron, wrought iron and cement, wood and other materials.
30. The design and construction of earth embankments and masonry dams for reservoirs.
31. The construction, dimensions and operation of navigable canals.
32. Methods of overcoming differences of level in canals.
33. The improvement and training of rivers.
34. The construction of harbors of refuge.
35. The construction of wharves, piers and docks.
36. The construction of fire-proof buildings.
37. Warming and ventilation of buildings.
38. House drainage.
39. The sewerage of towns and the disposal of sewage.
40. The form, material and dimensions of sewers.
41. The economical location of railroad lines.
42. The construction and maintenance of the permanent way on railroads.
43. The form, manufacture and life of rails.
44. The form and material of railway wheels.
45. The heating and lighting of railroad cars.
46. The prevention of accidents at railroad crossings and intersections.
47. Rapid transit in large cities.
48. The prevention of noise from heavy railroad trains moving at high speed.
49. Safe substitutes for animal power on surface railways.
50. The relative economy of the several kinds of fuel used in locomotives engines.
51. The operation of freight and passenger traffic on railroads, and the conditions of economy in the same.
52. The arrangement of terminal stations on trunk lines of railroads.
53. The manufacture, distribution, measurement and use of illuminating gas.
54. Electricity as applied to lighting and to motive power.
55. The modern construction of water wheels and engines.
56. The engineering questions involved in the location and management of large industrial exhibitions.
57. Manufacture, strength and durability of earthenware pipe.
58. The relations of engineers to employers and to contractors.
59. The status and compensation of experts.
60. Engineering and mechanical law.

The Railroads of Brazil.

Mr. W. Milnor Roberts, the eminent engineer, now in the service of the Empire of Brazil, has written an extended paper on Brazil for the American Society of Civil Engineers, from which we are permitted to extract the following passage concerning the railroads of the Empire:

About 25 years ago a railroad system was begun. The first line opened was 10 miles long, extending from the bay of Rio de Janeiro to the foot of the Coraan Mountains, on the route between Rio de Janeiro and Petropolis, where the imperial summer palace is situated. A very perfect macadamized road, rising by zigzags, connects the railroad with the general summit of the plain, about 3,000 feet above the sea.

This short line, the pioneer railway of Brazil, was projected and pushed through by the Baron Mauré, a very enterprising gentleman, who was also the prime mover in other more important public works.

In 1856 the Dom Pedro Segunda Railway, first section, was put under contract (38 miles), to near the foot of the Serra, under English engineers and contractors. This was opened for use in 1858.

In 1857 the second section of this important line was located under the direction of Col. C. F. M. Garnet, of Virginia, assisted by other American engineers; and in May, 1858, it was let to an American firm of contractors. This section of 29 miles cost over six and a half millions of dollars, averaging \$143,000 per mile. Its gauge is 5 ft. 3 in. Its maximum gradient in ascending the coast face of the Serra is 95 ft. per mile on tangents, reduced on curves. Its shortest radius of curvature is 712 ft.

The objective point of this "section" was the Parahyba River, 67 miles from Rio de Janeiro at the Barra de Pirahy. Thence it was extended, first, down the valley of the Parahyba, and afterward up the same, accommodating a fine coffee region. It is still being extended by main line and branches down the Parahyba. It was carried 97 miles up the valley, to a town on the river called Cachoeiras.

Later, within four or five years, an extension of this branch of the Dom Pedro Segunda line was undertaken by a Brazilian company, under a guarantee of 7 per cent. interest by the government, to run from Cachoeiras to San Paulo. It is 143 miles long, 1 meter gauge; minimum radius of curves, 328 feet; but most of the curves are much easier. It was finally opened for public use in July, 1877. Its cost was \$4,918,000, or \$34,360 per mile. It accommodates a considerable coffee region on its route, and connects the flourishing province of San Paulo, containing over 1,000,000 people, with the capital of the Empire, Rio de Janeiro. Passengers leave Rio de Janeiro at 5 a. m. and arrive in the city of San Paulo, the capital of the province, at 7:45 p. m. The line between Cachoeiras and San Paulo is called the "Estrada de ferro do Norte," and although its concessionaries were Brazilians, it was built by Americans; and it has American locomotives and cars, and American arrangements generally.

About the same time that the Dom Pedro Segunda Railway was begun, a very important line was projected from Santos, to surmount the Serra do Mar, and thence to San Paulo and beyond to the interior, the finest coffee region being about 100 miles from the coast. (You will find a description of this line, from Santos to Jundiáhy, 86 miles, written by its Resident Engineer, D. M. Fox, M. Inst. C. E., and also very interesting discussion upon the method of overcoming the Serra, in the *Transactions of the Institution*, upon Mr. Fox's paper No. 1,245, read March 8, 1870.) The inception, in practical shape, and surveys and location took place between 1856 and 1860; and at the time (or when the writer visited it, while in progress, shortly after) it was regarded as the boldest piece of engineering that had ever been undertaken on the American continent.

The government guaranteed 7 per cent. interest upon the capital of \$2,000,000 (afterward augmented to \$2,650,000, or about \$13,000,000), and an English company undertook its construction, with English engineers and English contractors, although Mr. Fox, the able resident engineer, mentions that the work was facilitated, materially to the advantage of the company, by American sub-contractors who had had several years' experience on the Dom Pedro Segunda line.

The great engineering feature of this San Paulo Railroad is its ascent of the Serra by four inclines, rising about 650 ft. each, or 2,600 ft. in all, at an average grade of 10.25 per cent. The planes are all curved to conform measurably to

the rugged contours of the Serra, but the work of cutting and filling was, notwithstanding, very heavy. By calculation of expenses the daily cost of transporting about 250 tons each way over these planes (and two passenger trains each way) is about \$200. On a grade of 100 ft. per mile, the length of the line would have been 26 miles, instead of five miles; and the additional capital for construction, it was assumed, would have been about a million of pounds sterling; so that, although with the best modern locomotive system the actual cost of transporting 250 tons each way might be less on a locomotive line, the interest on the additional capital was so great as to give a verdict at the time in favor of the inclines. (I think, however, that the additional first cost of a locomotive line was largely over-estimated. Still I believe that American engineers at that period—1860—under all the circumstances, would have decided in favor of a system of inclines, with ropes; although there might have been difference of opinion as the number and kind of the inclines.)

James Brunlees, M. Inst. C. E., was the Chief Engineer, but I believe he made only two visits to the line. The real work of location and construction was done under the immediate direction of Mr. Fox.

In 1878 there were 68,000 tons of coffee carried over this line and delivered in Santos for shipment. Between Santos and San Paulo, 48 miles, along the route of this road, there is very little agriculture, or any sort of industry. Forest, or else almost useless coarse grass meadows, are the physical characteristics of this plain, elevated about 2,500 ft. above the sea. At the distance of about 100 miles from this part of the coast there is a fine coffee region, where superior coffee is raised and transported (now) by rail to Santos.

As far as Jundiáhy the gauge of track is 5 ft. 3 in. The same gauge was also continued by another company, called the "Paulista," to Campinas, 28 miles, and from Campinas to Rio Claro, 56 miles. It was afterward extended from a point eastward of Rio Claro to Pirassununga, about 28 miles. This may be regarded as the main line to the interior of San Paulo, at present.

Other lines, all having meter gauge, have been built, connecting with this main trunk. From San Paulo to Ypanema, 80 miles; Jundiáhy to Ytu, 42 miles; Itacy to Peracibaba, 56 miles; Campinas to Mogymerim, 47 miles, and from thence to Casa Branca, 50 miles; Jaguary to Amparo, 19 miles; and other branches are all the time springing up, designed mainly to accommodate coffee fazendas.

Thus the province of San Paulo, in its business and general intercourse has, within a dozen years, been peacefully revolutionized by its railroad system, projected and led forward by intelligent, enterprising leading men of the province, aided by the provincial government, and also by the general government, with 7 per cent. interest guarantees.

The exportation of coffee from its chief port, Santos, has grown from 27,000 tons in 1868 to 68,000 tons in 1878. The annual receipts from customs at Santos, which from 1866 to 1871 averaged only \$1,100,000, now average about \$2,000,000.

While no other province, excepting Rio de Janeiro, has done so much as San Paulo in pushing forward railways, all of the other fifteen provinces touching the coast have done something; but a detailed statement of the finished and projected roads in each province would take up too much space for this letter. The provinces in which railroads have been built and others projected are Para, Maranhão, Piauí, Ceará, Rio Grande do Norte, Parahyba, Pernambuco, Alagoas, Sergipe, Bahia, Espírito Santo, Paraná, Santa Catharina and Rio Grande do Sul.

One of the latest important railways now in process of construction is in the province of Rio Grande do Sul, from the coast to the Uruguay River. It is, I believe, regarded as a strategic line. Other strategic lines are proposed, from the coast at points further north to reach the Paraná River.

During the late war with Paraguay the distance and natural difficulties of an unimproved region between the Brazilian coast and the seat of war compelled the Brazilians to attack, at great cost, from the La Plata estuary as a base. Hence, the desire now to secure railway communication, through Brazilian territory, between their own coast and their own navigable waters, either above Paraguay, or at some point on the Brazilian side of the River Paraná, opposite Paraguay—a very wise measure.

Since the opening of the first Brazilian railroad (in 1856, only 23 years ago), Brazil has embarked quite extensively in railway schemes. The general system has been for individual parties, uniting as companies, to secure a government guarantee of 7 per cent. on a given amount of capital—sometimes of the provincial governments and the general governments, and sometimes of the general government only. Some of the schemes have been carried on without any government guarantee, but based upon privileges granted.

The Dom Pedro Segunda and the San Paulo lines, notwithstanding their great cost, pay a liberal interest upon the capital invested. The prices for transportation are very high; but they are so much less than the cost of carrying by mules that all parties appear to be pretty well satisfied. The San Paulo line is owned entirely in England, and to England the good dividends go; but still leaving a surplus, which is paid to the Brazilian government. The Dom Pedro Segunda line is owned entirely by the government, and some parties desire it to be sold, to help the national finances. It might possibly approach the fable of the goose and the daily golden egg.

The New York Legislative Investigation of Railroad Practices.

A sub-committee of the Assembly Railroad Investigating Committee has been holding sessions at Rochester this week, hearing testimony chiefly from farmers and small traders.

One farmer testified that at his station farmers paid the same rates on grain to New York as are paid all the way from the West by western farmers. The rate from Ogden, his station, is now 15 cents per 100 lbs. [This is but one-half of the present rate from Chicago.] For the past ten years they had had special rates at times, usually from May till November; obtained on application to Mr. Goodman. He had been refused special rates when other people had them. They had been treated very fairly by the New York Central. Correspondents inviting consignments had written and said that if they would ship to them they would get a rebate on the freight. Within the past three weeks he had paid 15 cents per 100 lbs. on the railroad, and a week previous 14 cents on the canal. He had had special rates for 20 years, they were 2 or 3 cents per 100 lbs. less than regular rates.

Another farmer, who was also a dealer in coal and produce, said that the rates from Genesee to New York were higher than from Chicago to New York. Special rates had nearly ruined them. He had done business at a loss for the last five years. He shipped about 1,600 head of cattle a year. He had never had a special rate. On cattle the rate from Chicago to Buffalo is \$60 per car; from Genesee to Buffalo, \$15; from Buffalo to New York, \$50. From Genesee to New York he paid \$60 to \$75 per car in 1875; \$60 to \$65 in 1876; \$55 in 1877, and \$50 in 1878.

A cattle dealer living at Waterloo had paid \$36 per car

from Waterloo to Albany, and had had a special rate of \$25 per car from Buffalo to Waterloo when the regular rate was \$27. He had known of the rate being \$20 from Chicago to New York. Special rates had ruined his business.

A miller at Batavia said that he paid 23 cents per 100 lbs. for grain to Batavia and \$63 per car for flour to New York when the rate from Buffalo was but \$40.

Mr. Harris Lewis, who is President of the State Farmers' Alliance and the Greenback candidate for Governor, had a dairy farm and vinegar factory in Schuyler, Herkimer County. He paid on butter 60 cents per 100 lbs. in winter and 40 in summer. On vinegar he has had special rates of 16 and 20 cents, the regular rate being 34. From Utica the butter rate to New York was 12 cents; from Buffalo, 12 to 15; from the Mississippi, 38 cents, while he paid 40 cents. He complained because he did not get rates as low as those from the West. He did not complain of the amount of the rate, but of the discrimination.

On Tuesday Mr. Patrick Barry, a well-known nurseryman of Rochester, testified that there had been a great reduction in the rates on his shipments, and said, "The railroad company has always done the best it could for us." The express rates to New York were enormous.

A farmer living at Big Flats, on the line of the Erie, buys Western cattle, fats them on his farm, and ships them to New York. He had to pay \$49 per car from Buffalo, while people at stations six and 28 miles further east could get them for \$40. While the rate through from Buffalo to New York was \$22, he had to pay \$65 from West Junction to New York.

A manufacturer of stoves at Rochester had shipped much by canal to New York. By rail formerly he had paid \$45 to \$110 per car, but this year he has a special rate of \$25.

Mr. J. A. Hinds, a Rochester miller, identified some freight bills. He said the New York Central got \$10 per car of 125 barrels from Black Rock (Buffalo) to Troy, and \$20 from Rochester for 100 barrels. He said the Rochester millers could compete and make money if they got the same rates as the Western millers get. The wheat production of New York is at the rate of about 2½ bushels per inhabitant.

A Monroe County farmer complained of a great reduction in the prices received for farm produce. He did not know how much it was due to freight discriminations.

Another Monroe County farmer thought it would make no difference to New York consumers whether rates from Chicago were 10, 20 or even 40 cents. The farmers in the West get the difference when prices go down and bear it when they go up. He thought they should have rates as low in proportion as rates from the West.

A manufacturer of fruit and flour barrels in Rochester testified that his business had decreased because the shipments of flour and fruit have decreased.

United States Rail Imports for Eighteen Years.

Statement of the quantity, rate of duty and amount of duty on imported iron, steel and steel-headed rails entered for consumption in the United States in each of the 18 fiscal years ending with June 30, 1879, reported by Joseph Nimmo, Jr., Chief of the Bureau of Statistics:

IRON RAILS.				
Year ending June 30.	Tons (2,240 lbs.) entered.	Rate of duty.	Amount of duty received.	
1862.....	6,236.2	\$12 per 2,240 lbs.	\$74,834.06	
1863.....	3,712.5	" "	44,550.30	
1864.....	16,180.8	\$13.50 "	218,440.76	
1865.....	104,229.4	" "	1,407,090.16	
1866.....	66,455.0	80 cts per 100 lbs.	532,130.72	
1867.....	5,757.4	70 "	403,278.85	
1868.....	21,326.7	60 "	280,318.43	
1869.....	57,546.5	70 "	402,329.08	
1870.....	105,362.9	" "	1,052,090.37	
1871.....	140,040.1	" "	2,106,142.09	
1872.....	224,085.4	" "	3,513,658.40	
1873.....	288,802.3	" "	4,328,420.05	
1874.....	401,806.5	" "	6,301,293.44	
1875.....	305,788.0	" "	6,109,682.78	
1876.....	22,454.0	" "	352,231.02	
1877.....	189,358.4	do. less 10 p. c.	2,072,197.18	
1878.....	34,726.4	" "	490,058.37	
1879.....	8,812.8	" "	124,369.05	
1880.....	211.6	70 cts. per 100 lbs.	3,318.67	
1881.....	272.2	" "	4,327.67	
1882.....	5,115.3	do. less 10 p. c.	72,189.05	
1883.....	1,829.0	" "	20,657.82	
1884.....	553.7	70 cts. per 100 lbs.	8,082.69	
1885.....	792.0	do. less 10 p. c.	11,177.13	

STEEL RAILS.				
Year ending June 30.	Tons imported.	Rate of duty.	Amount of duty received.	
1871.....	18,731.3	45 per cent.	\$439,210.80	
1872.....	20,056.0	1½ cts. per lb.	729,508.81	
1873.....	105,214.3	" "	2,046,001.11	
1874.....	11,407.8	" "	319,418.73	
1875.....	128,317.3	do. less 10 p. c.	3,233,596.75	
1876.....	130,386.9	" "	2,285,749.26	
1877.....	38,170.8	" "	1,019,083.82	
1878.....	1,039.1	" "	26,184.77	
1879.....	4,914.5	14 cts. per lb.	137,607.05	
1880.....	8.9	do. less 10 p. c.	224.83	
1881.....	1,663.7	1½ cts. per lb.	40,707.71	
1882.....	1.9	" "	52.39	
1883.....	2,594.6	" "	72,649.34	

These figures have been compiled at the request of some French gentlemen who are preparing a book on American railroads.

An Employee's Courage Recognized.

The following order has been issued by Receiver Thomas R. Sharp, of the Long Island Railroad, under date of Sept. 15:

"The attention of the service is especially called to the gallant and heroic action of Fireman Charles Jones, of Engine No. 25, Train 5, July 23.

"In approaching Jamesport the engineer saw a child on the track, blew for brakes and reversed his engine. Fireman Jones, who was on the front of the engine, oiling the cylinders, seeing that it would be impossible to stop the train before reaching the child, immediately took a position on the cow-fender and succeeded in grasping it just in time to lift it harmless from the track, thereby saving its life.

"The child was a little girl about three years of age, the daughter of Mr. Samuel Bartlett, living near Jamesport.

"Too much praise cannot be awarded Mr. Jones for his action, and appreciating the ability, courage and good judgment displayed on this and other occasions, his name has been placed by the Master of Machinery on the list for promotion at the first favorable opportunity."



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EDITORIAL ANNOUNCEMENTS.

Passes.—All persons connected with this paper are forbidden to ask for passes under any circumstances, and we will be thankful to have any act of the kind reported to this office.

Addresses.—Business letters should be addressed and drafts made payable to THE RAILROAD GAZETTE. Communications for the attention of the Editors should be addressed EDITOR RAILROAD GAZETTE.

Advertisements.—We wish it distinctly understood that we will entertain no proposition to publish anything in this journal for pay, EXCEPT IN THE ADVERTISING COLUMNS. We give in our editorial columns OUR OWN OPINIONS, and those only, and in our news columns present only such matter as we consider interesting and important to our readers. Those who wish to recommend their inventions, machinery, supplies, financial schemes, etc., to our readers can do so fully in our advertising columns, but it is useless to ask us to recommend them editorially, either for money or in consideration of advertising patronage.

Contributions.—Subscribers and others will materially assist us in making our news accurate and complete if they will send us early information of events which take place under their observation, such as changes in railroad officers, organizations and changes of companies, the letting, progress and completion of contracts for new works or important improvements of old ones, experiments in the construction of roads and machinery and in their management, particulars as to the business of railroads, and suggestions as to its improvement. Discussions of subjects pertaining to ALL DEPARTMENTS of railroad business by men practically acquainted with them are especially desired. Officers will oblige us by forwarding early copies of notices of meetings, elections, appointments, and especially annual reports, some notice of all of which will be published.

NON-TRANSFERABLE TICKETS.

There is no need to explain to railroad men the inconvenience and evils of ticket-scalping; they understand them well and feel them keenly. But the general public do lack light upon the subject. They would judge the laws and rules against unauthorized sale of tickets more justly if they better understood the practical reasons for them. And railroad men might easily win from the right-thinking portion of the community a more cordial support to their position against the outside traffic in tickets, by a fuller and freer explanation of its mischievous effects. The average traveler is unaware that it can make any difference to a railroad company whether he himself or another rides upon the ticket he has bought; and regards a rule or clause which prohibits his selling it as unreasonable and causeless, in case for any reason he cannot use it himself. Show him the reasons and his opposition will weaken. First, then, as to the nature of ticket-scalping and its inconveniences to the companies: The prominent abuse is the miscellaneous brokerage in tickets which has grown up in most large cities. For several familiar reasons, the price of a through ticket is usually less than the aggregate of way fares from one point to another upon the route between the termini. Wherever competition is at all severe, and especially if the route is longer than the direct one, the reduction upon purchase of a through ticket is apt to be a considerable proportion of the cost. Hence, many years ago, shrewd travelers, assuming that they might sell any unused portion of a ticket, began a practice of buying through tickets though meaning to go only half way, and then, after reaching the stopping place intended, looking for a purchaser for the coupons remaining. Hotel clerks soon fell into the way of taking these fractional tickets from incoming guests and supplying them at a small profit to guests departing.

Their success led to the establishment of brokers' shops in most of the cities at more important railroad

centres, dealing in the same business. A chief objection upon the part of the companies to this traffic has been that it intensifies very unjustly and unnaturally the burden and hardship of competition; if way passengers may buy through tickets, and, by aid of scalpers, split them up between themselves, the companies are prevented from realizing that larger compensation for the way travel which they ought to have. It is not probable, indeed, that this objection would materially influence the average traveler; he will naturally buy his ticket at the lowest offer. But it has been sustained by several of the state legislatures, and they have passed laws to give the companies protection to a certain extent. And there are other reasons against the practice which do affect the general public. They apply also in other forms of this outside trade in tickets, as, where package-tickets are bought in quantity by a speculator who peddles them out one by one; where commuters assume to sell their tickets, and where a person buys an excursion ticket, not expecting to return in person, but relying upon selling the return half to some one desiring to make the return journey. At first it appears that no harm is involved in these trades, the road has been paid for carrying one passenger, and has been called upon to carry one only. But many inconveniences to the public result, which fully justify allowing the companies to make their tickets non-transferable, and go far to warrant the laws restricting brokerage in general tickets. To allow such outside dealing deprives the companies of any means of protecting themselves against frauds of employees; it offers strong temptations to conductors to take up tickets without punching, and to resell them through the brokers, and gives large opportunities to a manufacture and sale of forged tickets. Again it divests the companies of control over sale of tickets, and exposes passengers and the public to fraud; the brokers will sell bogus tickets or make all sorts of false representations and unauthorized promises about genuine ones, and the companies cannot interfere. These evils are aggravated by the fact that the broker is often irresponsible; that the victim of any fraud rarely discovers it till he has traveled too far to return and seek justice; that if he does return he cannot, usually, identify the dealer from whom he bought, or obtain enough to indemnify him for his additional expenses and loss of time. Then again the practice misleads the companies as to identity of passengers; in cases, for example, where state-room or palace-car lists are kept, and are afterward consulted in event of a wreck or collision, they mean nothing if passengers swap tickets among themselves. Again, the conductor's management of trains run for commuting passengers depends a good deal upon his knowing by sight the commuters on his road; this is frustrated if the company cannot forbid transfer of commutation tickets. Again, the chance that a commuter or excursionist will not claim the entire service represented by his ticket is one of the economies which enables the company to sell package, commutation or return tickets at a reduced rate; if they make a reduction in view of the chance that the purchaser will not want all the service he buys, they ought to have the benefit of it. Again, in order to make up adequate trains they need some knowledge of what amount of travel is to be anticipated; if a man may buy a package of 100 tickets and peddle them out the same day, the management have no means of judging whether car accommodations for one passenger or for one hundred will be needed that day.

Reasons like these have induced the companies to apply for laws restricting the traffic in fractional tickets; and reasons like these, when fairly made known to the general public, will satisfy them that the principle of such laws is just and right. The courts, by the way, sustain these laws. One objection has been that they are unconstitutional, because involving a regulation of commerce. To regulate commerce among the states belongs solely to Congress; but the courts of Indiana and Pennsylvania have decided in very recent cases that these laws do not regulate commerce among the states, but only affect traffic in tickets carried on within a state.

The Indiana Supreme Court says that the true rule and limit between the state and national powers is this: That a state cannot impose any burdens or charges upon commerce to other states; cannot create obstacles to it. Travel and transportation between the states must be free, except so far as Congress may lay restrictions. But a law requiring a railroad company to redeem its unused tickets, and forbidding brokers to buy them for speculation, does not involve any hindering of railroad traffic. The companies can prosecute their business of transportation, and travellers can come and go as freely as ever. The law affects only the disposal of the ticket as a subject of sale within the state; only the trade between traveler and ticket broker. It

is, therefore, fully within the authority of state legislatures.

This is eminently true of the Indiana law, for it declares that every company must redeem any unused portion of a ticket if asked to do so by the purchaser; and that the purchaser may sell the unused portion to a bona-fide traveler who means to travel on it. All that the law prohibits is brokerage by outsiders. Upon the justice of such restrictions may also be mentioned a recent English decision. One Aaron took out an excursion ticket and traveled on the forward half of it, and at the end of the trip, sold it to Howell. He took the cars to come back and offered the ticket, but was arrested for traveling without paying fare; for the ticket was marked "not transferable." The court adjudged him guilty; saying that if a ticket is taken for one trip by A, buying it without restriction, and he for some reason cannot use it, he may sell it to B, for in this case the company gets full fare. But an "excursion" or "tourist return" ticket, as it is called in England, is understood to be issued at a cheaper rate because the understanding is that the purchaser will come back over the same route. Any chance that he may not do so belongs to the company; and if the ticket is given over at the end of the single journey, by the purchaser, to another person, the condition on which it was issued is violated; the party who buys it does not pay his proper fare but makes the company lose the difference between the reduced return fare and the full fare for the single journey.

Upon behalf of the brokers it is urged that a railroad ticket is property, and whoever has bought it and paid for it may sell it again freely. This view cannot apply to tickets bearing a non-transferable clause, or a stipulation that it has been issued for a continuous passage. If it were true that tickets are property, the law sustains a sale of property on conditions; and when a company has sold a ticket upon a condition or understanding that it is not to be transferred, the law ought to and would enforce the condition as much as a clause in a deed that only dwelling-houses should be built on the land, or, in a policy, that the goods or policy should not be transferable. But a ticket is not so much property as evidence of a right. It is the token issued by the fiscal officers of the company to the persons in charge of the train that the holder has paid his fare and is entitled to ride. It may or may not embody a special contract. If it does, if it provides that the right to travel which it represents shall not be transferable, and if the traveler has had the benefit of a rate of fare fixed with a view to that stipulation, there is no reason in law or justice why the stipulation should not be enforced.

All that the honest portion of the traveling public need, on these points, is a candid explanation. Ticket-sellers and conductors should post themselves on the substantial interests which restrict transfers of tickets and forbid scalping, and give an objecting passenger, when they meet one, a reason for the regulation.

NATIONAL RAILROAD LEGISLATION.

The reply of Mr. Wm. H. Vanderbilt to the letter of a committee of the Chamber of Commerce asking the presidents of the trunk lines to prepare a bill for the regulation of through traffic by national law, in which he states expressly that he believes that "Congress might take some action which would both benefit the public and protect investors," would have been much more surprising two or three years ago than it is now. One of the notable developments of the last few years among leading railroad managers has been the conviction that they cannot manage the transportation business in all its branches so as to produce the best results, regular rates, the greatest economy in expenses, and a proper distribution of the burden of the interest on the investments in the roads, by acting individually and independently. Some sort of coöperation there must be to secure these ends, and the "independence" which, to many, has seemed to be of prime importance in most cases means liability to disaster, either to the corporation or to the community, and usually to both. The through rates of every road are affected by the action of other roads. It may be so situated, it is true, that it can make a satisfactory income on the traffic which is local to it, of which it has substantially a monopoly, so as not to depend upon its competitive traffic for support, or incur danger of financial disaster by the action of its rivals. But in this case, if its through traffic is made unprofitable, then either the company divides smaller profits than it would otherwise get, or the local traffic pays higher rates than would otherwise be necessary. Bearing in mind the many and great discriminations which unavoidable circumstances compel, it cannot be denied that there are many others which could be avoided with profit to the railroad companies if in any way they could be

held to follow a uniform course of action with regard to the traffic for which they compete.

Now nearly all the railroad companies feel sharply, in one way or another, the defects of the system which has been developed necessarily by the operation of the individual policy, under which every company could do as it pleased with regard to rates. The poorer ones suffer from inadequate income, the richer ones from the dissatisfaction and threatened hostile action of those who pay local rates and have little interest, and think they have none, in through rates. Wherever there are very great differences, and especially where the low rates on the through traffic affect the prices of the produce which pays the higher local rates, there is a disposition to use all the power at command to compel the road to accept lower local rates. Because it makes little or nothing on one branch of its business it is required to make less on the other branches.

Thus the dissatisfaction caused by great differences in rates is one more reason why the railroad managers are anxious to get all the aid they can to prevent too low rates. Each by itself is wholly helpless; but by coöperation, evidently, all that in the nature of things is possible can be effected. But a coöperation at will cannot give assurance of permanency. If any one partner to a compact can break it with impunity, its term will always be uncertain. As soon as it has been fairly demonstrated that by the coöperation of companies evils hitherto prevailing can be avoided, and that has been pretty well done already where they have been made to work successfully, it will be reasonable to ask for some legal sanction for them, accompanied by whatever may be thought necessary to protect the public from any evils which may be feared as the result of such coöperation of the railroads.

Just as Mr. Vanderbilt's letter is published in the New York papers, the October number of the *North American Review* appears with an article entitled "The Railway Problem," by Mr. Robert Garrett, of Baltimore, who is, we believe, the son of Mr. John W. Garrett, has been associated with him in some of the subsidiary lines of the Baltimore & Ohio, and may be supposed to reflect in some degree Mr. John W. Garrett's views. This article does not stop with suggesting national legislation as possibly desirable; but it distinctly urges it, in the interest of the railroads and the public alike.

The danger in national, as in other, legislation is that it will be made too hurriedly and attempt to do too much. It is altogether improbable that any plan can be originated in Congress which will be of advantage to either party. It will doubtless be necessary for the roads to work out their own salvation, and that of their patrons too, so far as it can be done by a rational and practicable adjustment of rates. But what Congress can do is to give legal sanction to the plans which the railroads, working under the influence of the public demands, shall have designed. Not that the railroads should prepare a bill, and that Congress should pass it without further ado; but that the practicable, effective suggestions must come from those who understand the business; which, after searching investigation by all parties concerned, may then be embodied in legislation.

German Railroads in 1877.

The capital of the railroads in the German Railroad Union in 1877 was at the average rate of \$103,379 per mile of road, and 81½ per cent. of the road was double-track line. The capital per mile of some of the costlier roads was:

Berlin, Potsdam & Magdeburg.....	\$173,772
Berg & Märk.....	172,039
Rhine Border.....	171,000
Empress Elizabeth Main Line.....	170,248
Saarbrück Railroad.....	163,546
Cologne & Minden.....	158,961
Zittau & Reichenberg.....	158,896
Muldenthal.....	149,800

There were 56 other roads whose capital was more than \$100,000 per mile, and only 26 whose capital was less than \$58,000 per mile, which is about the average of railroads in the United States. The cheapest roads are:

Arad & Köröszthal.....	\$13,189
Braunau & Steindorf.....	16,622
Military Railroad.....	23,551
Nuremberg & Fürth.....	24,082
Angermünde & Schwedt.....	30,882
Hungarian State Narrow-Gauge.....	35,551
Glücksstadt & Elmshorn.....	35,953

All the others cost more than \$40,000 per mile.

The average cost per mile for locomotives was \$6,054, though the average number was but 0.45 per mile of road, or one locomotive to 2.22 miles of road, indicating an average cost on the books of the companies of \$13,453 per locomotive.

The average distance run by locomotives during the year was only 16,643 miles, with an average consumption of fuel (nearly all coal of some kind) amounting to 49 lbs. per train-mile (not locomotive-mile).

On the railroads of this Union in 1877 the passenger traffic amounted to 5,466,343,016 passenger-miles, of which only 2.8 per cent. was by first-class passengers, and 19.1 by second-class passengers, 51.2 was by third-class, 19.3 fourth-class passengers and 7.6 by passengers at reduced rates—soldiers, etc. Nearly four-fifths of the whole number,

therefore, were of classes below the second. The average passenger traffic per mile of road was 174,340—equivalent to 239 each way daily; in New York in 1878 the average was 121,166, or 166 each way daily. In Germany the heaviest passenger traffic was on the little Nuremberg & Fürth road, where it was equivalent to 1,573 each way daily; but this is rather a city railroad than an ordinary line; next to it, but far removed, was the Main-Neckar road, 981 each way daily—more than twice as many as the New York Central, and nearly as many as the New York, New Haven & Hartford, which is the American road with the heaviest passenger traffic. The Hungarian narrow-gauge had the lightest passenger traffic—an average of 12 each way daily.

The freight traffic of these roads amounted to 11,095,739,900 ton-miles, equivalent to 325,185 per mile of road, or to 490 tons each way daily. This is not double the traffic of the 8,390 miles of New York roads, which in 1878 had 5,807,260,813 ton-miles of freight, equivalent to 692,165 per mile of road and to 948 each way daily over the whole mileage—the latter being more than twice as heavy a freight traffic as the average road of the German Union enjoys. Counting a passenger-mile as equivalent to two ton-miles, the total traffic per mile is equivalent to 968 ton-miles on the German roads and to 1,290 on the New York roads. If the comparison is confined to the roads of the German Empire (those of Austria and Hungary have a much lighter traffic), we find that they have the equivalent of 284 passengers and 555 tons of freight each way daily over the whole mileage, or a total of 1,123 ton-miles—nearly an eighth less than the average New York road's traffic.

The heaviest freight traffic in Germany was on the Upper Silesian road, equivalent to 2,572 tons each way daily, against 2,798 on the New York Central in 1878. The Emperor Ferdinand Northern road stands second in the German Union, but with only 1,888 tons each way daily.

In 1877, six American roads, besides the New York Central, had a heavier traffic than the latter—the Pennsylvania, the Erie, the Boston & Albany, the Michigan Central, the Pittsburgh, Cincinnati & St. Louis, the Pittsburgh, Ft. Wayne & Chicago, and the Philadelphia & Erie. One German railroad had but 15 tons each way daily, and 13 had less than 50 tons.

The receipts of the roads were \$341,685,964, and at the average rate of \$11,230 per mile of road, of which \$3,110, or 27.7 per cent., were from passengers, \$7,493, or 66.7 per cent., from freight, and \$827, or 5.6 per cent., from miscellaneous sources. The heaviest earnings were \$31,229, on the Upper Silesian Railroad, followed by \$29,726 on the Emperor Ferdinand Northern. There were five others that earned more than \$20,000 per mile, and fifteen more that earned more than \$15,000. On the other hand, there were 60 that earned per mile less than \$6,000, 27 less than \$3,000, 10 less than \$2,000, and one (a military railroad), less than \$1,000. The average rates per ton and passenger per mile for three years have been on the roads of the two great countries represented in the Union, and on the other not German or Austrian roads, as follows, in cents:

	1875.	1876.	1877.
Germany.....	Passenger-mile.....1.43	1.42	1.40
	Ton-mile.....1.94	1.89	1.83
Austria-Hungary.....	Passenger-mile.....1.75	1.76	1.87
	Ton-mile.....2.51	2.56	2.58
Other Union roads.....	Passenger-mile.....1.67	1.65	1.66
	Ton-mile.....1.90	1.84	2.04
Average for Union roads.....	Passenger-mile.....1.52	1.51	1.52
	Ton-mile.....2.10	2.07	2.05

The highest average passenger rate was 2.525 cents, on the Roumanian railroads; the lowest, 0.903, on the Industrial Railroad of Aix-la-Chapelle.

The passenger rates are very much lower than in this country (mostly third and fourth-class passengers); the freight rates would be high on most American roads, but not on the New England or the Southern roads, or those west of the Mississippi. The average is more than double the average freight rate of the New York roads for the year ending with September, 1878. If these New York roads had carried at the rates of the German Railroad Union in 1877 their traffic would have produced:

Passenger.....	\$15,452,031 instead of \$23,933,749 or \$8,481,718 less.
Freight.....	119,048,850 " " 58,045,198 " 61,003,652 more.
Both.....	134,500,881 " " 81,978,947 " 52,521,934 more.

This would have given the New York railroads \$85,163,527 of net earnings, instead of the \$33,641,593 which they actually made, or 156 per cent. more.

The Late Daniel Drew.

Daniel Drew died at his residence in New York, suddenly, Sept. 18, in the 83d year of his age. Almost everyone has heard of him and read some story of his life; how he was left alone in the world when but a boy, and soon became a cattle-drover, gradually amassing money and extending his business by his native shrewdness and close attention to his business. Cattle, however, did not monopolize his attention very long, and in 1834 he made his first venture in the transportation business by buying an interest in a Hudson River steamboat. Gradually he worked into the steamboat business, and in 1839 he established the famous People's Line between New York and Albany, which then and since has always boasted of its ownership of the largest and finest boats on the Hudson and perhaps in the world. On the river he first came into competition with Cornelius Vanderbilt; for years they fought each other with varying success, and the old Commodore found Daniel Drew so tough and formidable an antagonist that he was glad to take him as a partner, when they extended their business from the Hudson to Long Island Sound in the line between New York and Stonington. Mr. Drew had then also a line running on Lake Champlain, which he afterward sold out to the Rensselaer & Saratoga Railroad Company. When he and Mr.

Vanderbilt took the Stonington Line, they also ventured into railroad business, buying an interest in the old Providence & Stonington Railroad.

Meantime Mr. Drew had not confined himself to steamboats, but, as early as 1840, he had taken an interest in a Wall street banking firm and soon became a large operator in stocks. He was not, we believe, a large permanent holder of any particular stock until after 1850, when he began to buy and hold Erie, and soon became a director and afterward Treasurer, being the moving spirit in the board for several years. He also went into the New York & Harlem with Vanderbilt, the last of his ventures with the Commodore, and with good reason, for he is said to have lost heavily by it in the end. He afterward sought revenge when Vanderbilt was buying heavily into Erie, by a large issue of new stock, which upset his opponent's calculations, and which gave rise to some extended litigation. Later Mr. Drew had the doubtful honor of introducing the notorious Fisk to Wall street and to the Erie, a favor which was afterward returned when Fisk joined with Gould and others in ousting Drew from the management and taking Erie under their own control.

Daniel Drew, meantime, did not confine himself entirely to Erie, but was a heavy operator in Toledo, Wabash & Western, in Chicago & Northwestern and other stocks well known in Wall street, and was for some time one of the chief owners of Canada Southern, being all this time a power on the street and a man of large wealth. He had been generally fortunate, except in his fight with Vanderbilt over the Harlem, but luck began to turn against him at last, and in one operation, a famous corner in Northwestern preferred, he is said to have lost over \$500,000, and he is believed to have lost heavily on Wabash and other stocks, besides a large sum in Canada Southern, which he was obliged to pass over to other hands. The panic of 1873 found him heavily loaded with speculative stocks, on which his losses must have been large, and a year and a half later he went into bankruptcy with assets much less than his liabilities. Since then he has withdrawn from actual business, and has lived quietly, partly in New York City and partly on a farm which he owned in Putnam County, N. Y., his birthplace. How much he retained of the enormous fortune he once had, is not certainly known, but some believe that he had secured himself a comfortable property, even after his bankruptcy.

While he was chiefly engaged in the steamboat business he was the active manager of his own lines, but Daniel Drew was never a railroad manager in any proper sense of the term. He took no part in the working of his roads and went into a company solely for what he could make by speculating in its stock. Even during his long connection with the Erie as Treasurer and director he paid attention only to its financial affairs and left the management of the road itself to others, and, indeed, is said to have cared for it only as its gain or loss in business affected his speculative schemes. And with his other roads it was the same; it was the stock, not the road, that he cared for. He was a type of the "speculative director," once more common than now, and hardly considered it doing anything improper when he ruined the stockholders for whom he was a trustee in carrying out his speculations in the stock of his own company. Nowadays the "speculative director" doesn't care to have it known that he is bearing his company's stock, and usually tries to conceal his speculations.

Daniel Drew can hardly be said to have been an estimable or even an attractive man. Deprived of all opportunities for education by the hard circumstances of his early life, he always remained a rough, uncultivated man, and made his way by the force of his native shrewdness and cunning. And his moral education seems to have been deficient as his intellectual training. For many years he was a member of the Methodist Church; he gave largely to its churches and schools, and by himself alone endowed its chief theological school, which bears his name; but Wall street did not by any means hold his word as good as his bond, and instances without number are told of his trickery and unscrupulous cunning. In the height of his financial power he was feared and not trusted; in his later downfall he had no sympathy from his associates, and his death will call forth nothing beyond a passing remark.

Foreign Railroad Notes.

The French Minister of Public Works has established an Investigating Commission to examine into the means of preventing railroad accidents or rendering their consequences less serious. Persons, in France or abroad, who may wish to be heard by the Commission are requested to address its President, M. Guillebot de Nerville, Inspector-General of Mines, at the Ministry of Public Works, Paris. American inventors of brakes and other safety appliances may govern themselves accordingly.

Canal navigation in Belgium seems not to be what one would call "rapid transit." A company owning a canal having recently experimented with a steam-tug system, it is announced that "a large boat carrying about 250 tons, which has required seven or eight days to make the through passage from Termonde to Blaton, 54 miles, henceforth will make the same trip in four days at most." The innovation, it seems, will give a speed of something like half a mile an hour.

An extensive work on the Railroads of America (*Les Chemins de Fer en Amérique*) is in course of preparation by E. Lavoine, a well known French writer on engineering, who was a member of one of the juries at the Centennial, and Ernest Pontzen, who represented Austria at the Philadelphia Exposition, and prepared a report on our railroads which was published in the German language. Mr. Pontzen was

educated for his profession at the French School of Bridges and Highways, and has resided in Paris nearly all the time since his return from America. The first volume is announced by Dunod, the publisher, as about to appear, a large octavo with an atlas of 59 plates, costing 45 francs, or, to import, about \$15. This volume, after an introduction on the peculiar circumstances of American railroads, and some geographical and historical matters, has three general divisions: one on substructure, one on superstructure and a third on stations and signals. The second volume will include rolling stock, the operation of the roads and what the French call the commercial operation—the making of rates, competition and the general business of a traffic manager, or of general freight and passenger agents; the financial position of the roads; narrow-gauge roads; and street railroads, including elevated roads.

The railroads carried to Berlin in 1877 an average of 25,490 passengers and 15,498 tons of freight daily, and to Vienna 18,961 passengers and 10,580 tons of freight. The two cities are about equal in population.

At the end of July, of the 12,331 miles of railroad in Prussia, 3,780 miles were owned by the state, 2,478 were owned by corporations but worked by the state, and 6,064 miles were owned and worked by corporations. Arrangements have already been made for the government to take 3,112 miles more of private railroad, which will give it more than three-fourths of the total mileage in Prussia, including nearly all the most important roads, and leaving no company which has more than 375 miles. The 3,112 miles which the government is about to acquire have a capital of about \$400,000,000.

The introduction of refrigerator cars into Austria for carrying fresh meat to Northern Europe and Great Britain is reported to have been very successful. The first trials were made in 1877, in which year the exports were but 324 tons; but in the first five months of 1879 they amounted to 950 tons. But suddenly, for some reason which we do not find explained, the Bavarian government has forbidden both the importation and the transit of fresh meat, and the Austrians have refrigerator cars to let.

Very near the time of the close of the Russian war a railroad line was completed connecting the Austrian State Railroad (which has been owned by a corporation for many years) with the Roumanian roads at the Hungarian border, on the Danube. But the Hungarian government would not give its consent to the opening of the road for business for an entire year. The railroad company estimated its damages from the delay at \$400,000, and has sued the Hungarian government for that amount. The government plead that such an action could not be brought; but the courts have decided against it, and the trial will proceed.

Rail Importations.

The revival of importations of rails, to some extent, after a period in which they had been reduced almost to nothing, gives interest to the statement of importations for the past eighteen years which has been prepared by the Bureau of Statistics, and which we publish elsewhere.

The importations of steel rails were not kept separately before 1871. Since that time the tons (of 2,240 lbs.) of each kind imported have been:

Year.	Iron.	Steel.	Steel headed.	Total.
1871.....	401,866.5	44,787.3	236.0	446,889.8
1872.....	395,388.0	105,214.3	4,508.2	505,200.5
1873.....	211,830.4	139,725.1	1,062.9	352,618.4
1874.....	34,736.4	130,280.0	15.3	165,138.6
1875.....	9,024.4	38,170.8	16.3	47,210.5
1876.....	5,387.5	5,953.6	16.3	11,357.6
1877.....	2,442.7	1,072.6	29.5	4,144.8
1878.....	792.0	1.9	8.4	802.3
1879.....	2,594.6	16.5	2,611.1

The imports during the four years of the war were 202,571 tons—enough for 2,302 miles of track of 56-lb. rails—the commonest weight. In the next two years the imports were 184,436 tons; in the next three (ending with 1870), 652,948; in the three ending with 1873, in which railroad building (and domestic rail production also) culminated, 1,804,729 tons—enough for 14,827 miles of track. In the six years since 1873 only 231,265 tons have been imported, and in the last five years only 66,126 tons, or only enough to lay 751 miles of track.

Since the close of the last fiscal year (30th of June last), some importations of iron rails have begun again; after having ceased entirely for a year, and been trifling for five years. This is due to the fact that the revival of the demand has been so sudden that prices have risen materially before production could catch up with it; and though the price of iron abroad is nearly the same as of steel, the duty on iron is but \$15.68 per ton, while that on steel is \$28. With the same price in Europe, therefore, the steel rails cost \$12.32 per ton more than the iron to import. The importations, however, either of iron or steel, have not yet been enough to affect foreign prices noticeably. These prices are firmer, but hardly higher, than they were a few months ago. But doubtless there can be but little further advance in prices here without bringing the immense British and Belgian producing capacity into our market. It is said that it costs now about \$55 a ton to import the best English steel rails. Orders, we understand, are taken now at Eastern mills for next year's delivery at not less than \$52, and \$54 is spoken of, and for immediate delivery the buyer must go abroad, for our mills are full for months ahead. Apparently there is scarcely any limit to the steel that can be had abroad for about \$25—that is, the European works (in England, Belgium and Germany) will continue to produce at that price if they cannot get any more. This makes it reasonably certain that there will not be an advance above \$55 here until the foreign demand is much better than at present, and foreign prices rise in consequence. It seems not to be the opinion of the manufac-

turers that there will be any further advance. But that is a matter which they cannot prevent (even if they wanted to) so long as the capacity of the works is below the requirements of the market. Of the eleven Bessemer works in the United States, all but one have been worked to their full capacity for some time; and the eleventh (the Vulcan Works at St. Louis) will be started next month, and perhaps will fully supply the demand, and so keep prices below the importing point. It is one of the largest of the Bessemer works and the newest of them all, and is well situated to supply a large district of country.

Record of New Railroad Construction.

This number of the *Railroad Gazette* contains information of the laying of track on new railroads as follows:

Corpus Christi, San Diego & Rio Grande.—Extended from Collins, Tex., westward to San Diego, 13½ miles. Gauge, 3 ft.

Northern Pacific.—Extended from Coal Bank, Dak., west 10 miles.

Atchison, Topeka & Santa Fe.—Track has been laid on the Couley, Sumner & Ft. Smith Branch from Wichita, Kan., southward to Wellington, 35 miles.

Clarksburg, Weston & Glenville.—Extended from Jane Lew, W. Va., to Weston, 7 miles. Gauge, 3 feet.

St. Louis, Kansas City & Northern.—On the Omaha Extension track is extended from Marysville, Mo., northwest to the Iowa line, 22 miles; also on the Council Bluffs end extended southeast to Malvern, Ia., 8 miles.

Utah & Northern.—Extended from Camas, Idaho, northward to Devil's Dive, 40 miles. Gauge, 3 feet.

Dayton, Covington & Toledo.—Extended from West Milton, O., northward to Versailles, 24 miles. Gauge, 3 feet.

Chicago, Milwaukee & St. Paul.—On the southwestern branch of the Iowa & Dakota Extension, track has been laid from Marion Junction, Dak., west by south 15 miles.

Minneapolis & St. Louis.—Extended from Albert Lea, Minn., southwest to Nunda, 10 miles.

Norfolk & Ocean View.—Completed from Norfolk, Va., to Ocean View, 16 miles.

This is a total of 201 miles of new railroad, making 2,064 miles thus far this year, against 1,245 miles reported for the corresponding period in 1878, 1,335 in 1877, 1,509 in 1876, 761 in 1875, 1,082 in 1874, 2,691 in 1873 and 4,765 in 1872.

WATER RATES have fluctuated a little during the week ending with Wednesday last. Lake rates were pretty steady at 4½ cents for corn and 5 for wheat from Chicago and Milwaukee to Buffalo until Monday, when they advanced, and by Tuesday the quotations were 5 cents for corn and 5½ for wheat. Canal rates, which, by the close of the previous week, had reached the highest figures known for years, were maintained except for two or three days, when they were half a cent lower. They closed just about as they began, at 9 cents a bushel for wheat, 8½ for corn and 5½ for oats from Buffalo to New York. The elevator charge at Buffalo is now 1½ cents, so that from Chicago to New York by lake and canal the cost is now 15½ cents for wheat and 14½ for corn. Just three months ago, in the last week of June, the cost was 6½ for wheat and 5½ for corn. The advance in water rates has thus been 9½ cents per bushel on wheat and 9½ on corn—150 per cent. The advance in regular rail rates meanwhile has been 6 cents per bushel on wheat and 5.6 on corn, or 50 per cent. But at that time the roads had large contracts outstanding at much less than the regular rates.

Ocean rates fluctuated a good deal during the week—rose as high as 8d. per bushel for grain from New York to Liverpool and even higher, but stood at about 7½d. Wednesday. This is an immense advance over the rate of three months ago, which was but 4d., and the whole cost by water from Chicago to Liverpool, omitting the harbor transfer at New York, has risen from 14½ cents for wheat in the last week of June to 30½ in the last week of September. Evidently fluctuations in rates are not peculiar to railroad traffic.

Proposed Conference of The Trunk Lines and the Chamber of Commerce on National Railroad Legislation.

The following letter has been addressed to Wm. H. Vanderbilt, President of the New York Central Railroad, and to Mr. H. J. Jewett, President of the Erie Railway, by the Committee of the Chamber of Commerce on Railroad Transportation, suggesting Congressional legislation to regulate railroad traffic throughout the United States:

DEAR SIR: The undersigned have reason to believe that the presidents of the Pennsylvania Central and the Baltimore & Ohio railroads entertain the opinion that proper Congressional legislation connected with the appointment, by Act of Congress of Railroad Commissioners to regulate inter-state communication in the matter of freights, either by railroads or by rail and water transportation combined, would be of essential service, both to the railroads and to the general public, and they are glad to notice from the report of the Legislative Committee on Railroad Investigation that you entertain similar opinion.

The committee therefore suggests that the presidents of the trunk lines should cause to be prepared for presentation to Congress at its next session, a bill designed to accomplish this object. They further suggest that the bill when prepared should be presented for criticism to the representative commercial bodies in the several cities on the sea-board who are directly interested in the matter.

If this plan should be concurred in and a mutual agreement be arrived at, the benefits would be obvious. This committee beg leave distinctly to state that they desire neither state nor congressional legislation which shall not, while protecting the public, be also just to the railroads. The committee are, also, of the opinion that the public will justly demand both state legislation to regulate local traffic, and Congressional legislation to regulate the through traffic, and that to this end it is desirable that the representatives of the trunk lines and of the people should work in harmony.

Begging the favor of an expression of your views in reply, we remain, Your obedient servants,

CHARLES S. SMITH,
BENJ. B. SHERMAN,
JACKSON S. SCHULTZ,
FRANCIS B. THURBER,
JACOB WENDELL,
B. G. ARNOLD,
C. C. DODGE.

NEW YORK, Sept. 17, 1879.

To the above letter the following reply has been received from Mr. Wm. H. Vanderbilt:

NEW YORK CENTRAL AND HUDSON RIVER
RAILROAD COMPANY, GRAND CENTRAL DEPOT,
NEW YORK, Sept. 18, 1879.

GENTLEMEN: I am just in receipt of your letter of yesterday. The questions you present are of the first importance, not only to the railroads, but to the whole United States, and specially to the state and city of New York. Unless they are calmly and fairly met, irreparable injury may be done to every material interest. They are of too serious moment to be made a football in politics or settled by an agitation in which each political party shall try to outdo the other, without regard to the practical effect of any action which may be taken. To create a false issue against the railroads and arouse popular feeling in hostility to them, is not, and never has been a difficult thing to do, and it is very easy for it to get beyond control of, and injure most, its original promoters. But where the legislation which follows has been tried, the farmers, merchants and manufacturers have suffered to as great, if not greater extent than the railroads. This is the experience of other states and countries, and the judgment of the ablest men who have devoted themselves to a careful consideration of the question. The railroads are not, and cannot be antagonistic to the public, with whom their very existence is indissolubly connected; and in the end, the relations between them and the people are better adjusted by the people and themselves, than by any iron-clad legislation. The same papers which publish your letters contain the announcement of the appointment of a committee of merchants to foment agitation upon the basis of hostility to railroads and to proffer support or threaten hostility to legislative candidates unless they will pledge an unquestioning support to whatever further this sentiment. While I hear with pleasure from gentlemen of the high standing and character of your committee the assurance that you "desire neither state nor congressional legislation which shall not, while protecting the public, be also just to the railroads," the present aspect and methods of agitation compel me to frankly and freely say what I have. I believe that any legislation upon the transportation question by the state, unless based upon general legislation first had by Congress will be disastrous to the commercial supremacy and prosperity of New York. The state cannot tie the hands of its roads and leave their outside competitors free without working directly for the ruin of its mercantile and industrial interests, and for the growth of other and rival states and sea-ports. I differ, however, from many other railroad men in believing that Congress might take some action which would both benefit the public and protect investors. I certainly will be very glad to meet the presidents of the trunk lines to discuss the matter, and prepare, if possible, a bill to overcome the difficulties, and also meet with the representatives of commercial bodies and arrive with them at an amicable understanding and united action. This is surely wiser than to put these problems up at auction for politicians to bid upon for votes. Very Respectfully,

WILLIAM H. VANDERBILT, President.

To Messrs. Charles S. Smith, F. B. Thurber, B. B. Sherman, B. G. Arnold, Jackson S. Schultz, Jacob Wendell, Charles C. Dodge, Special Committee of the Chamber of Commerce, New York City.

General Railroad News.

MEETINGS AND ANNOUNCEMENTS.

Meetings.

Meetings will be held as follows:
Ohio & Mississippi, annual meeting, at the office, No. 59 West Fourth street, Cincinnati, Oct. 9, at 10 a. m. Transfer books close Sept. 23.
Champaign, Havana & Western, annual meeting, at the office in Champaign, Ill., Oct. 2, at noon.

Railroad Conventions.

The *Southern Railway & Steamship Association* will hold its annual meeting at the Kiuball House, Atlanta, Ga., Oct. 1, beginning at 10 a. m.
The *Order of Railroad Conductors* will hold its twelfth annual convention, in New York city, beginning Oct. 7. The meetings will be held in the building No. 300 Eighth avenue.
The *General Time Convention* will hold its regular fall meeting at the Windsor Hotel, New York, Oct. 9.
The *Southern Time Convention* will hold its fall meeting at Barnum's Hotel, Baltimore, Oct. 15.

Dividends.

Dividends have been declared as follows:
New York & Long Branch (leased to Central, of New Jersey), 3½ per cent., semi-annual, payable Oct. 1.
Chicago, Rock Island & Pacific, 2 per cent., quarterly, payable Nov. 1; also at the same time 6½ per cent. on Iowa Southern & Missouri Northern stock held in trust, making the total payment 2½ per cent. Transfer books close Oct. 1.
Chicago, Milwaukee & St. Paul, 3½ per cent. on the preferred stock and 2½ per cent. on the common stock, out of the earnings of 1879, payable Oct. 15. Transfer books close Sept. 30.
Dubuque & Sioux City (leased to Illinois Central), 2 per cent., payable Oct. 15.

Mail Service Extensions.

Mail service has been ordered over railroad lines as follows:
Dayton, Covington & Toledo, service ordered from Dayton, O., to Versailles, 41 miles, to begin Oct. 1.

Foreclosure Sales.

The *Selma & Gulf road* was sold under a decree of foreclosure in Selma, Ala., Sept. 22, and bought for \$120,100 by Charles Williams, of Atlanta, Ga., who is said to have represented Mr. D. F. Sullivan, President of the Pensacola Railroad Company. The attorney for the Mobile & Montgomery Company was also a bidder. The road is completed from Selma to Pineapple, 40 miles, and some work has been done on the line south 60 miles further to Pollard, the junction of the Mobile & Montgomery and the Pensacola railroads. The funded debt is reported at \$640,000.
The *Reading & Lehigh road* was sold under foreclosure of the first mortgage, in Philadelphia, Sept. 23, and bought by John N. Hutchison for account of the bondholders, for \$200,000. We are not advised whether it is an independent purchase, or made in the interest of the Philadelphia & Reading or the Wilmington & Northern Company; both companies

desired to secure the road. It extends from a point outside of Reading, Pa., through that city and thence to Statington, Pa., 42 miles. It was built by the Berks County Company and was, in 1874, sold under execution, subject to the first mortgage for \$1,500,000, and was bought by the floating-debt creditors, who organized the Reading & Lehigh Company. It had been built to give the Wilmington & Northern a line beyond Reading and a connection with the Lehigh Valley road, but after the sale in 1874, the new company leased it to the Philadelphia & Reading, which has since worked it.

The Peoria, Pekin & Jacksonville road will be sold in Pekin, Ill., Nov. 14, under the decree of foreclosure lately granted. The road is 83 miles long, from Peoria, Ill., to Jacksonville, and the decree fixed the bonded debt at \$1,000,000 principal and \$507,043 accrued interest. The following are the terms of sale: No bid will be received for said property unless the bidder shall first deposit with the Master the sum of \$10,000 to insure the good faith of such bid, and, upon the acceptance of his bid, the purchaser shall pay to the Master the further sum of \$40,000 in cash, making, with his previous deposit, the sum of \$50,000, and, upon the confirmation of said sale by the court, the purchaser shall pay to the Master the further sum of \$150,000, and the balance of the purchase price shall be paid within six months after the confirmation of said sale. For the remainder of the purchase money, over and above the said sum of \$200,000 and such further sum as the court may hereafter require to be paid in cash, the Master will receive any of the first-mortgage bonds of said road, and the past-due coupons thereof belonging thereto, for such sum as the holder thereof shall be entitled to receive from the proceeds of said sale.

The Des Moines, Winterset & Southwestern road will be sold in Des Moines, Ia., Oct. 23, under a decree of foreclosure granted by the United States Circuit Court in 1876. The road extends from Somerset Junction, Ia., to Winterset, 26 miles and is leased and chiefly owned by the Chicago, Rock Island & Pacific. The sale is probably made to perfect the title of that company to the road.

The Southwestern Association.

The meeting at Chicago for the reorganization of this association (we do not hear that it has been named, but it consists of the members of the old Southwestern Railway Association) continued for four days. The committee appointed to arrange the apportionment of freight among the several roads could not agree, as was to be expected, and it was therefore agreed to leave the matter to arbitration, the Chicago roads to choose one arbitrator, the St. Louis roads a second, and these two, in case of disagreement, a third. The Chicago roads first chose Mr. Charles C. Wheeler, Assistant General Superintendent of the Chicago & Northwestern, and the St. Louis roads chose Mr. Albert Fink. Both of these gentlemen declined, whereupon the Chicago roads chose Gen. E. F. Winslow, of the Burlington, Cedar Rapids & Northern, and the St. Louis roads Mr. G. W. Parker, of the St. Louis & Cairo Short Line.

It was voted that any member desiring to leave the Association must give 75 days' notice.

On application of Peoria freight agents, rates were made from that point to Missouri River points, as follows: 75, 60, 40 and 30 cents per 100 lbs., for the four numbered classes, and 25 cents for the special class; 50 cents a barrel for salt, cement and plaster, and 90 cents for coal oil; \$4.50 per ton for coke, and \$65, \$55 and \$35 for classes A, B and C.

It was further voted that any road which has sold tickets on or since Sept. 12 (when the order to restore rates went into effect) at reduced rates, should be required to redeem them at full rates on presentation.

The general passenger agents of the roads belonging to the Association were directed to meet as early as possible to adopt such measures as will prevent the occurrence of the abuses that have existed heretofore with regard to the payment of commissions. An Executive Committee was appointed to supervise the operation of the Association between the regular monthly meetings. This committee consists of J. C. McMullin, General Manager Chicago & Alton; C. W. Smith, Traffic Manager, Chicago, Burlington & Quincy; J. B. Carson, Superintendent of the Hannibal & St. Joseph; Thomas McKissock, General Superintendent, St. Louis, Kansas City & Northern, and A. A. Talmage, General Superintendent, Missouri Pacific.

The next meeting is to be held Wednesday, Oct. 22, at the Merchants' Exchange, St. Louis.

Railroad Claim Agents' Association.

At the recent convention in Philadelphia the following was submitted by a committee as a substitute for Rule 10 of the Association, and was recommended to the managers of roads, with the request that delegates to the next convention be empowered to vote upon the propositions. The first substitute is as follows:

"The claims, having been properly located and authority to charge the roads interested obtained, should be settled by the roads to whom presented, and the proportion due beyond such road be charged to their immediate connection, to be followed, 30 days after statement is sent, by draft for the amount of statement of claims rendered, provided that five days' notice of draft be given in advance."

Or, second:

"Each road to furnish monthly statement of claims authorized by connections and exchange vouchers, to be followed on four days' notice with draft for balance, after same shall have been ascertained and acknowledged."

The following was adopted as a substitute for Rule 8:

"That we recommend to the attention of general freight agents that the remittance of money received by agents for the purpose of prepayment of charges accruing to lines in connection and beyond the initial line, be made only to the proper officer of that line for receiving such money, and that amounts accruing to connecting lines shall be plainly shown in the way-bills of the station for which the property is just billed; that the billing agent shall give, in his way-bills to the receiving agent, authority for recharge against his station of such amounts as may have been collected by such billing agent for prepayment of charges beyond his own lines."

On recommendation of the Business Committee the following was also adopted:

"With a view to curtailing the number of claims arising from the loss of grain doors, this Association would recommend to the attention of general freight agents and superintendents that they take such action as is necessary to enforce the return of grain doors from terminal points east, and that local and terminal agents be instructed to look after, and be held responsible for, the grain doors in cars delivered at their stations."

Meeting of the Joint Executive Committee.

Pursuant to announcement, the Joint Executive Committee assembled at No. 346 Broadway, New York, Tuesday, Sept. 23, Mr. Albert Fink, the Chairman, presiding, and Mr. Isaac Markens acting as Secretary. The following roads were represented:

Atlantic & Great Western, by G. G. Cochrane; General Freight Agent.

Baltimore & Ohio, by John King, Jr., First Vice-President.

Boston & Albany, by Wm. Bliss, General Manager.

Cairo & Vincennes, by N. S. Pennington, General Freight Agent.

Central Vermont, by L. Millis, General Manager Through Freight Department.

Chicago & Alton, by J. C. McMullin, General Manager.

Chicago, Burlington & Quincy, by C. W. Smith, Traffic Manager, and E. P. Ripley, General Freight Agent.

Cincinnati, Hamilton & Dayton, by A. H. McLeod, General Freight Agent.

Cleveland, Columbus, Cincinnati & Indianapolis, by E. B. Thomas, General Manager, and Lucien Hills, General Freight Agent.

Evansville & Terre Haute, by J. E. Martin, President and Superintendent.

Grand Trunk, by L. J. Seargeant, Traffic Manager.

Great Western, by G. B. Spriggs, General Freight Agent, and Wm. Edgar, General Passenger Agent.

Indiana, Bloomington & Western, by H. C. Diehl, General Freight Agent.

Indianapolis & St. Louis, by John C. Noyes, General Freight Agent.

Jeffersonville, Madison & Indianapolis, by R. W. Geiger, General Freight Agent.

Lafayette, Muncie & Bloomington, by E. H. Waldron, General Superintendent.

Lake Shore & Michigan Southern, by John Newell, General Manager.

Louisville & Nashville, by E. B. Stahlman, General Freight Agent, and J. M. Culp, Assistant General Freight Agent.

Louisville, Cincinnati & Lexington, by John McLeod, General Superintendent, and Edgar Hill, General Freight Agent.

Marietta & Cincinnati, by John King, Jr., Receiver.

Michigan Central, by H. B. Ledyard, General Manager, J. A. Grier, General Freight Agent, and A. W. Street, Assistant General Freight Agent.

New York Central & Hudson River, by J. H. Rutter, General Traffic Manager; J. B. Dutcher, Live Stock Agent, and E. Clark, Jr., General Freight Agent.

New York, Lake Erie & Western, by G. R. Blanchard, Assistant to the President; R. C. Vilas, General Freight Agent; E. R. Wadsworth, General Western Agent, and E. T. Low, Assistant General Freight Agent.

Ohio & Mississippi, by M. H. Smith, General Freight Agent of the Baltimore & Ohio.

Pennsylvania Railroad, by A. J. Cassatt, Third Vice-President; H. W. Gwinner, Auditor of Passenger Receipts; Wm. F. Griffiths, Jr., Assistant to the General Freight Agent; J. L. Gossler, Eastern Freight Agent, and Geo. B. Edwards.

Pennsylvania Company, by J. N. McCullough, First Vice-President; D. S. Gray, William Stewart, General Freight Agent; R. C. Meldrum, Northwestern Freight Agent.

Philadelphia, Wilmington & Baltimore, by John S. Wilson, General Freight Agent.

Pittsburgh, Cincinnati & St. Louis, by J. N. McCullough, Third Vice-President.

Toledo, Peoria & Warsaw, by W. S. Speirs, General Freight Agent.

Vandalia Line, by H. W. Hibbard, General Freight Agent.

Wabash, by A. L. Hopkins, General Manager, and J. M. Osborn, General Freight Agent.

Mr. Fink made an address, showing the progress made since the last meeting in June, and noting the adherence of six additional companies, namely, the Boston & Albany, the Chicago, Burlington & Quincy, the Illinois Midland, the Indianapolis, Cincinnati & Lafayette, the Lafayette, Bloomington & Muncie, and the Louisville, Cincinnati & Lexington.

A petition was received from the Detroit Board of Trade asking for such a revision of the basis of fixing the rates as would give Detroit a smaller proportion of the Chicago rate than it has had since the revised table of percentage went into effect (June 23). Previous to that date the rates were in proportion to distance. Since they have been substantially in proportion to mileage plus a terminal charge, the Detroit rate is now 81½ per cent. of the Chicago rate, when formerly it was but about 70 per cent. of it. The petition was referred to the Committee on Percentages.

A petition was also received from Boston and New Haven pork-packers, urging that live hogs should be carried to Eastern packing cities at fourth-class rates. The petitioners stated that their business was being destroyed by the very low rates on provisions from the West to the sea-board, being by the latest arrangement 10 cents less per 100 lbs. than the rate on live hogs, while the product is but 55 per cent. of the animal. Thus the Chicago packer can send to Boston for 35 cents meat for which the Boston packer cannot get the hogs carried for less than 81.8 cents. The petitioners did not complain of the rates, but urged that if the provision rate was made as high as the live-hog rate, there would be vastly more packed on the sea-board, and thus much more freight be occasioned than there is now in the carrying of hog products from the West.

This petition was referred to a Committee on Live-Hog Rates.

The following committees were appointed:

On Hog Rates.—Wm. Stewart, M. H. Smith, L. Millis, J. B. Dutcher, and R. C. Vilas.

On the Abrogation of Contracts below Regular Rates.—Messrs. Gray, Cochrane, Hills, Grier, Vaillant and Osborn.

On Percentages for Computing East-bound Rates.—Messrs. Stewart, M. H. Smith, Seargeant, Spriggs, Blanchard and McKay.

On Lumber Rates.—Messrs. Kingsbury, Porteous, Vaillant, L. Hills, Cochrane and Fraser.

On Cotton and Tobacco Rates.—Messrs. Stahlman, Geiger, E. Hill, Gray, Martin, Ripley, Noyes, Hibbard, C. W. Smith, M. H. Smith and Pennington.

On Classification.—Messrs. M. H. Smith, Kingsbury, Stewart, Grier, Hibbard, Noyes, Geiger, Fraser, Cochrane, Speirs and McKay.

At Wednesday's session the Committee on Percentages for Computing East-bound Rates reported in favor of preserving unchanged the table which went into effect June 23 last, and so of not granting the request of the Detroit Board of Trade.

The Committee on Live-Hog Rates reported that the rates on live hogs to the sea-board should remain as they are, 10 cents per 100 lbs. higher than the fourth-class rate, but that a rebate of 5 cents per 100 lbs. be granted on all hogs, the product of which is exported, thus yielding something to the Boston and New Haven packers.

It was resolved that from Oct. 1 next, the rates on butter and eggs be on the basis of 50 cents per 100 lbs. from Chicago to New York, cheese 40 cents, and wool 50 cents, with an addition of 5 cents to Boston.

The Committee on Lumber Rates reported that rates on coopers' stock, hard and soft lumber and logs be made the same as those on pine lumber, under the lumber tariff of March 24, and that the rates to different places be in the same proportion to each other as by the tariff of April 13, 1876, as that is the basis on which Toledo and Detroit rates are made on the same property.

The Committee on Cotton and Tobacco Rates recommend

that, beginning Oct. 1, the rates on cotton to New York be made as follows, in cents, per 100 lbs.:

From	Uncompressed. All rail.	Rail and river.	Compressed.
Memphis.....	67	65	..
Nashville.....	60
St. Louis & Hannibal.....	59	..	42
E. St. Louis & E. Hannibal.....	55
Cairo.....	57	..	42
Evansville.....	55	..	40
Louisville.....	48	..	40
Cincinnati.....	45	..	37

This committee also recommended that the all-rail rate on cotton received from all points competing with Gulf and South Atlantic sea-board routes be divided on a *pro rata* basis after deducting arbitrations.

It thought it best to postpone action on tobacco rates until the opening of the next tobacco season.

The committee on classification deferred action till a special meeting to be held in Cincinnati Sept. 30.

The session was to be continued Thursday, when among the subjects to come up were the regulation of passenger business and the apportionment of freight among the immediate connections of the trunk lines.

It is proposed to hold meetings of the Joint Executive Committee hereafter, on the third Tuesday of each month.

ELECTIONS AND APPOINTMENTS.

Anderson, Lebanon & St. Louis.—At the annual meeting in Noblesville, Ind., Sept. 11, the following directors were chosen: Samuel E. Busby, Elijah Cottingham, Josiah Durfee, Ransom Edwards, James F. Harney, Francis S. Kersup, James Jacobs, James A. Learner, John Lee, Abram O. Miller, John Milligan, Edwin P. Schlatter, Wm. Zion. The board elected John Lee, of Crawfordsville, Ind., President.

Animas & Uncompahgre.—The first board of directors of this new company is as follows: Joseph W. Gilluly, C. A. Lamborn, Henry McAllister, Jr., H. A. Risley, A. E. V. Stretzell. Office at Colorado Springs, Col. It is apparently organized in the Denver & Rio Grande interest.

Central Bahia.—Mr. A. H. Kessner, an Austrian engineer, has been appointed General Manager and Chief Engineer of the Central Bahia Railroad, and now has his office at Bahia, Brazil.

Central Vermont.—Mr. James M. Foss, for some years past Superintendent of Machinery and Rolling Stock, has been appointed Assistant General Superintendent. His office will remain at St. Albans, Vermont.

Chicago, Clinton, Dubuque & Minnesota.—Mr. J. L. Pennington has been appointed General Agent of this road, with headquarters at No. 66 La Salle street, Chicago.

Chicago, Pekin & Southwestern.—Mr. Samuel C. Smith, of Joliet, Ill., has been appointed Auditor by the Receiver.

Dayton & Southeastern.—Receiver Gimperling has appointed Wm. E. Cooper Master Mechanic, in charge of the Machinery and Car Department.

Delaware & Chesapeake.—Mr. O. S. Sanford has been appointed Superintendent, in place of John L. Caldwell, resigned.

Delaware River.—The full list of directors of this company, successor to the Delaware Shore, is as follows: E. H. Green, Samuel Hopkins, Alexander Justice, Dr. S. T. Miller, Thomas L. Ogden, W. Richardson. The board elected Thomas L. Ogden, President; Dr. S. T. Miller, Secretary. Office at Woodbury, N. J., for the present.

Denver & Rio Grande.—Mr. S. R. Ainslie has been appointed Traffic Superintendent, with office at Denver, Col., in place of W. W. Borst, Superintendent, resigned. Mr. Ainslie will assume all duties pertaining to the office of Superintendent, General Freight and Passenger Agent.

Eastern.—The following circular has been issued by President Phillips:

"Mr. C. M. Lewis, Master of Rolling Stock, having resigned, the duties of that office will, for the time being, be performed by the various foremen at their respective locations."

"Daniel S. Wallis will have charge of the East Boston shops and the repairs of all locomotives."

"The following will have charge of the engineers, locomotives and cars running from their various stations: A. R. Barrett, Foreman, Prison Point; E. A. Ferguson, Foreman, Portsmouth; A. B. Barrett, Foreman, Portland; James Tucker, Foreman, Wolfboro Junction. J. D. Billings will manage shops at Salem and control all car repairs and cleaning."

"Requisitions for supplies will be made by each of above through C. H. Lewis, Clerk and Storekeeper, East Boston."

"It should be remembered that we are all at work for one company, and the earnest cooperation of all concerned is required that its interests shall not suffer."

Evansville & Eastern.—The first board of directors is as follows: E. G. Cushman, R. G. Eager, A. O. Derland, H. N. Decker, George H. Ellery, T. E. Garvin, H. B. Hanson, T. H. Mason, I. S. Moore.

Green Bay & Minnesota.—Mr. J. A. Munroe has been appointed General Freight Agent of this company, from Sept. 15. All communications in relation to freight should be addressed to him, at Green Bay, Wis.

Mr. J. S. Moit has been appointed General Agent of this company, with headquarters at Green Bay, Wis.

Harrisburg & Potomac.—At the annual meeting recently the following directors were chosen: Daniel V. Ahl, C. W. Ahl, Jacob Bowman, Asbury Derland, J. J. Dull, A. W. Eichelberger, Lewis Heikes, Joshua Hunt, John Moore. The board elected Daniel V. Ahl President; R. H. Middleton, Secretary and Treasurer.

Helena & Iron Mountain.—At the annual meeting in Helena, Sept. 8, the following directors were chosen: S. I. Clark, T. M. Jacks, G. D. Jaques, L. H. Mangum, Nicholas Straub, Frank Trunkley, Helena, Ark.; Nathaniel Graves, Phillips County, Ark.; Wm. Bailey, J. V. Watlake, St. Louis; G. W. Herod, Cincinnati; Horace R. Allen, Aquila Jones, Willis S. Webb, Indianapolis. The board elected Wm. Bailey, President; Willis S. Webb, Vice-President; S. I. Clark, Secretary; T. M. Jacks, Treasurer.

Jeffersonville, Madison & Indianapolis.—Col. James R. Shaler, late of the Columbus Division of the Pittsburgh, Cincinnati & St. Louis, has been appointed General Superintendent of this road in place of Horace Scott, resigned.

Knoxville & Cincinnati Southern.—At a recent meeting of the board Mr. J. G. Scott, of Oakdale Iron Works, was elected a director, in place of R. M. McClung, resigned. Major D. A. Carpenter was chosen Secretary and Treasurer, in place of R. M. McClung, resigned.

Lake Erie & Western.—Mr. G. G. Hadley has been ap-

pointed Superintendent, with office at Fremont, Ohio, vice I. H. Burgoon, resigned.

Little Falls & Dakota.—The directors of this new company met in St. Paul, Minn., last week and elected officers as follows: President and Chief Engineer, Wm. Crooks, St. Paul, Minn.; Vice-President, C. A. De Graff, Janesville, Minn.; Secretary, E. P. Barnum, Sauk Centre, Minn.; Treasurer, L. E. Reed, St. Paul; Executive Committee, C. A. De Graff, W. P. Clough, J. R. Simmons.

Massachusetts.—At the annual meeting in Starstead, P. Q., Sept. 11, the following officers were chosen: Robert N. Hall, President; S. Foster, Vice-President; W. J. Foster, Secretary and Treasurer. The road is leased to the Connecticut & Passumpsic Rivers Company.

Northern Pacific.—At the annual meeting in New York, Sept. 24, the following directors were chosen: Frederick Billings, Woodstock, Vt.; B. P. Cheney, Boston; Johnston Livingston, Hugh McCullough, Walter Ferguson, James B. Williams, New York; C. B. Wright, Joseph D. Potts, J. Frailey Smith, Philadelphia; J. M. Denison, Baltimore; Joseph Dilworth, Pittsburgh; Alexander Mitchell, Milwaukee, Wis.; J. C. Ainsworth, Portland, Oregon. The new directors are Messrs. McCullough, Ferguson, Williams, Potts and Dilworth, who succeed George W. Cass, Charlemagne Tower, George Stark and Richard L. Ashurst, there being one director chosen more than last year.

Railroad Young Men's Christian Association.—The International Conference of these associations at Altoona, Pa., Sept. 19, elected the following officers: President, W. R. Davenport, Erie, Pa.; Vice-Presidents, E. E. Sheldon, St. Paul, Minn.; E. S. Wood, Providence, R. I.; William North, West Albany, N. Y.; William Burbank, Altoona, Pa., and Lang Sheaff, Cleveland, O.; Secretaries, Charles A. Danforth, New Haven, Conn., and Mark L. Hyndman, Phillipsburg, N. J.

St. Paul Eastern Grand Trunk.—At a meeting of the directors of this new company in Chippewa Falls, Wis., Sept. 11, the following officers were chosen: President, Thaddeus C. Pound, Chippewa Falls, Wis.; Vice-President, Wm. Wilson, Menominee, Wis.; Secretary, Iana C. Lamb, Fond du Lac, Wis.; Treasurer, L. C. Stanley, Chippewa Falls, Wis.; Attorney, Wm. Pitt Bartlett, Eau Claire, Wis. This completes the organization of the company.

Springfield, Jackson & Pomeroy.—The Court of Common Pleas has appointed William Thornbury Receiver, in place of William N. Whitely, relieved at his own request. Mr. Thornbury has been Superintendent for some time.

West Jersey & Atlantic City.—This company has been organized by the election of the following directors: Charles P. Stratton, William S. Scull, Camden, N. J.; Mahlon Hutchinson, Bordentown, N. J.; Gershom Mott, Benjamin F. Lee, Trenton, N. J.; John M. Moore, Clayton, N. J.; Israel S. Adams, Egg Harbor City, N. J.; George Wood, George C. Potts, Samuel Lewis, A. Loudon Snowden, Aaron Fries, Edward A. Warne, Philadelphia. The board elected George Wood President; Edward H. Bottle, Secretary and Treasurer.

PERSONAL.

—Mr. Cambridge Livingstone, a prominent and wealthy citizen of New York, died at his summer residence in Annandale, N. Y., Sept. 17, aged 68 years. He inherited a large fortune, and in early life studied civil engineering and afterward the law, but never practiced either profession actively. He interested himself in the telegraph from the time of Professor Morse's first invention, was connected with several of the earlier telegraph companies, and had been a director of the Western Union from its formation, serving also as Secretary for several years. He was also a director of the Camden & Amboy and its successor, the United New Jersey Company, for many years.

—Mr. Samuel E. Frazee, late Paymaster and General Agent of the Indianapolis & St. Louis Company, died recently in Mayeville, Ind., and was buried last week from his residence in Indianapolis. He had been connected with the Indianapolis & St. Louis 12 years.

—Mr. W. W. Borst has resigned his position as Superintendent of the Denver & Rio Grande road. It is said that differences of opinion with Receiver Ellsworth have caused this action. Mr. Borst has been connected with the road, we believe, from its first commencement.

—Mr. I. H. Burgoon has resigned his position as General Superintendent of the Lake Erie & Western (late Lake Erie & Louisville) road, which he has managed for many years.

—Mr. Wm. P. Shinn, General Manager of the Edgar Thomson Steel Works since their establishment, and previously connected with the Pittsburgh, Ft. Wayne & Chicago as General Freight Agent, and the Allegheny Valley as Assistant President, has accepted the position of General Manager of the Vulcan Iron & Steel Works, of St. Louis, and will shortly remove to that city. These works are the newest in the country, but they have been idle most of the time since they were completed.

—The following circular, from General Superintendent and Chief Engineer Robert Andrews, of the Wabash Railway, is dated Sept. 16:

"It is with sincere regret that I have to announce the death of Warren Colburn, Esq., who died at Saratoga Springs, N. Y., Sept. 15, 1879, with congestive chills.

"Mr. Colburn was Chief Engineer of the Toledo & Wabash Railroad during its construction, from 1853 to its completion in 1856, and was for many years afterward a director, as well as Vice-President and General Manager of this railway.

"While his great ability and excellent judgment as an officer commanded our respect at all times, his kindly and over friendly manner endeared him to all with whom he was associated.

"As a token of respect to his memory, the principal offices of this company will be suitably draped with mourning, and it is requested that the officers will wear a crape rosette on the left side of coat for a period of 30 days."

—Mr. George T. Wiswell, who is Secretary of the Road-Masters' Association, has resigned his position as Road-Master of the Troy & Greenfield Railroad. Mr. A. W. Lock, Assistant Engineer of the road, who was long connected with the Hoosac Tunnel, will have charge of maintenance of way hereafter.

—It is reported that Gen. James H. Wilson, Receiver of the St. Louis & Southeastern road, has been offered the position of Vice-President and General Manager of the New York & New England Railroad, and that he now has the offer under consideration.

TRAFFIC AND EARNINGS.

San Francisco Ocean Freights.

The freight market at San Francisco has lately been active, and wheat charters have been freely made, both for vessels in port and to arrive. Latest quotations are 43s. 6d. per ton

to Liverpool or Havre for wooden vessels, and 46s. to 46s. 6d. per ton for iron ships—equivalent to 27 to 29 cents per bushel. On Sept. 13 there were vessels of 56,064 tons capacity in port under charters to carry wheat; 4,776 tons under charter for miscellaneous freight, and 30,898 tons disengaged.

From Portland, Oregon, latest quotations for wheat shipments are 50s. per ton to Liverpool; 52s. 6d. to Cork and a market, and 57s. 6d. to European ports outside of Great Britain.

Railroad Earnings

Earnings for various periods are reported as follows:

Eight months ending Aug. 31:

	1879.	1878.	Inc. or Dec.	P. c.
Chi., Burlington & Quincy	\$9,079,221	\$8,966,425	I.	\$82,796 0.9
Denver, South Park & Pacific	309,887			
Gal., Houston & Henderson	281,330	230,250	I.	51,080 22.2
Nash., Chatta. & St. L.	1,113,658	1,004,735	I.	49,123 4.6

Seven months ending July 31:

St. Louis & South-eastern	\$655,958	\$626,051	I.	\$29,907 4.8
Net earnings	148,131	119,234	I.	28,897 24.2

Month of August:

Chi., Burlington & Quincy	\$1,575,150	\$1,632,207	D.	\$57,048 3.5
Denver, South Park & Pacific	91,204			
Gal., Houston & Henderson	37,717	35,859	I.	1,858 5.2
Nash., Chatta. & St. L.	142,182	129,859	I.	12,323 9.5

Second week in September:

Chicago & Alton	\$176,793	\$104,137	I.	\$72,656 69.8
Chi. & Eastern Ill.	17,696	17,194	I.	502 2.9
Chi., Mil. & St. Paul	228,000	160,740	I.	67,260 41.9
Mo., Kan. & Texas	86,987	80,347	I.	6,640 8.2
St. Louis, Iron Mt. & So.	156,300	103,115	I.	53,085 51.5
St. Louis & San Francisco	47,000	26,300	I.	20,700 78.7
Toledo, Peoria & War-saw	23,391	26,061	D.	3,270 12.2
Wabash	141,758	128,665	I.	13,093 10.2

Week ending Sept. 12:

Great Western	\$91,390	\$83,618	I.	\$7,772 6.3
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Week ending Sept. 13:

Grand Trunk	\$192,727	\$173,976	I.	\$18,751 10.8
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Grain Movement.

For the week ending Sept. 13 receipts and shipments of grain of all kinds at the eight reporting Northwestern markets and receipts at the seven Atlantic ports have been, in bushels, for seven years:

Year.	North-western receipts.	Total.	By rail.	P. c. by rail.	Atlantic receipts.
1873	6,128,249	6,082,202	1,260,456	20.8	3,811,293
1874	3,800,277	3,075,032	257,523	8.5	2,776,801
1875	3,878,940	3,853,150	1,564,652	40.6	3,442,577
1876	3,512,610	4,057,652	1,698,318	30.3	3,607,278
1877	3,751,856	4,803,113	1,024,304	20.9	4,927,774
1878	6,397,260	5,813,414	1,622,581	17.6	6,240,026
1879	6,857,719	5,592,939	1,358,966	24.3	7,305,083

The receipts at Northwestern markets are smaller than for either of two weeks preceding. At this time last year these receipts fell off largely after having been for four weeks the greatest ever known. Of the receipts of these markets for the last week this year, 47.8 per cent. was at Chicago, 16.8 at Toledo, 12.2 at St. Louis, 9.2 at Milwaukee, 6.5 at Detroit, 4 at Peoria and 3.5 per cent. at Cleveland; 32 per cent. of the wheat and 80 per cent. of the corn were received at Chicago, 21½ per cent. of the wheat at Toledo, and 15 per cent. at St. Louis. Peoria stands next to Chicago in corn receipts.

The shipments of these markets were larger than in the previous week, but their rail shipments were somewhat smaller, and the smallest since the first week in July, though larger than in the corresponding week of last year when rates were the same.

The receipts of the Atlantic ports for the week this year are a little smaller than in the week preceding, and a little smaller than the average for eight weeks. For the corresponding week of last year the receipts were the largest ever known. Of the Atlantic receipts of the week this year, 50.4 per cent. was at New York, 15.4 at Baltimore, 12.6 at Philadelphia, 8.7 at Montreal, 5.6 at Boston, 4.2 at New Orleans, and 0.1 per cent. at Portland.

For the week ending Sept. 23 (Tuesday), receipts and shipments at Chicago and Milwaukee were as follows, in bushels:

	Receipts.	Shipments.
Chicago	3,461,613	3,077,098
Milwaukee	791,300	457,800
Total	4,252,913	3,534,898

For the same week, ending Sept. 23, the preceding week and the corresponding week last year, the receipts at the four leading Atlantic ports were, in bushels:

	Week ending Sept. 23, '79.	Week ending Sept. 16, '79.	Sept. 24, '78.
New York	3,612,043	3,169,385	3,701,525
Baltimore	1,503,035	1,408,793	872,467
Philadelphia	834,250	964,550	785,600
Boston	793,139	460,194	293,036
The four ports	6,342,467	6,011,895	5,652,628

The week showed a small gain over last week and a considerable one over the corresponding week last year. New York receipts fell off slightly, as compared with last year, while Philadelphia and Boston both gained and Baltimore showed a great increase, chiefly in wheat. New York receipts were 57.0 per cent. of the total, against 52.7 per cent. last week, and 65.5 per cent. in the corresponding week of 1878. Of the total receipts at New York 1,050,805 bushels, or 29.1 per cent. were by rail.

Coal Movement.

Coal tonnages are reported as follows for the week ending Sept. 13:

	1879.	1878.	Inc. or Dec.	P. c.
Anthracite	550,419	411,677	I.	138,742 33.7
Semi-bituminous	40,081	76,383	D.	36,302 47.5
Bituminous, Pennsylvania	42,543	38,561	I.	3,982 10.3
Coke, Pennsylvania	20,787			

Cumberland shipments were almost stopped for the week by the strike among the miners.

There are no further developments of importance in relation to the proposed new combination of the anthracite companies, and it does not appear probable that one will be made at present.

The Pittsburgh Telegraph, referring to President Garrett's recent visit to Pittsburgh and its neighborhood, says: "In connection with this matter it is not out of place to say that several days ago the old contract between the Pennsylvania and Baltimore & Ohio Railroad companies, in regard to the coke traffic from the Connellsville Region, whereby

the Pennsylvania Railroad Company is given control of the business in return for a remuneration, was renewed, and the Pennsylvania Railroad will continue to keep its grip on this monopoly for an unknown length of time."

Southern Railway & Steamship Association Rates.

A circular from General Commissioner Powers announces the following rates on cotton, which took effect Sept. 16. The rates are given in cents; those from Augusta are per bale, from all other points per 100 lbs.:

From	Baltimore	Baltimore & Annapolis	Baltimore & Washington	Baltimore & New York	Baltimore & Philadelphia	Baltimore & New Orleans	Baltimore & Savannah	Baltimore & New England	N. England towns
Augusta, Ga.	125	125	175	225	250	275	300	300	300
Macon or Milledgeville	40	40	40	50	55	65	70	75	75
Athens, Atlanta, Rome, Dalton, Chattanooga	45	45	45	55	60	65	70	75	75
Atlanta & West Point R. R. local points	60	60	60	70	75	80	85	90	90
West Point or Opelika	50	50	50	60	65	70	75	80	85
Montgomery or Selma	40	40	40	50	55	60	65	70	75
Western & Atlantic local: Bolton to Tilton	55	55	55	65	70	75	80	85	85
Smyrna to Resaca	57	57	57	67	72	77	82	87	87
Marietta to McDaniel's	60	60	60	70	75	80	85	90	90
Big Shanty to Boyce	62	62	62	72	77	82	87	92	92
Acworth to Halls	65	65	65	75	80	85	90	95	95

To make rates to points in New England and Canada not included under "New England towns," add arbitraries from Boston or New York to New York rates, using that total which is least.

Another circular gives in detail the rates on merchandise from Eastern, Western, coast and common points to Southern points, both by Eastern lines and the Green Line, as adopted by the joint committee representing the Southern Association and the Green Line. These rates took effect Sept. 19. From Boston, New York and Philadelphia to Atlanta, Athens, Chattanooga, Dalton, Macon, Milledgeville, Montgomery, Rome and Selma they are, for the six numbered classes:

Class.	1.	2.	3.	4.	5.	6.
Cents per 100 lbs.	125	110	85	75	60	45

From Baltimore the rate is 6 cents less on the first three classes, and 4 cents less on the last three.

On the lettered classes the rates are not the same to all these places. To Atlanta and Athens they are 34, 50, 50, 50 and 55 cents per 100 lbs. for classes A, B, C, D and E, and to the other places named they are 34, 45, 45, 45 and 50—lower to Selma and Montgomery than to Atlanta.

To Atlanta, Macon, Athens, Rome and Dalton from Chicago (also from Peoria, Pekin and Havana), the rates are 150, 129, 108, 88, 73 and 58 cents per 100 lbs. in the six numbered classes, and 53, 58, 58, 53, 63, 106, 195 and 88 on the lettered classes A to H, F and G being for barrels. From St. Louis the rates are about 11 per cent. less.

New Classes of West-Bound Freight.

By agreement of the trunk lines, the following rates on articles named below went into effect Monday, Sept. 22:

Salt, cement, old rails, steel rail-ends, scrap steel, scrap iron, spiegelisen, pig-iron and blooms, 25 cents per 100 lbs. from New York to Chicago, with the usual differences from other sea-board cities, and to other Western points. The trunk lines will accept not less than 15 cents per 100 lbs. on shipments from New York to their Western termini—Suspension Bridge, Buffalo, Pittsburgh, Wheeling and Parkersburg.

Railroad iron will be charged at the rate of 30 cents per 100 lbs. from New York to Chicago, and not less than 20 cents to the Western termini of the trunk lines.

Rail-and-lake rates on these two new classes will be made on the usual basis.

These rates are given only for car-load lots.

Heretofore the lowest rate from New York to Chicago has been 40 cents. This was sufficient to divert most of the traffic in the articles named above to the canal and lake. But heretofore the movement of pig, scrap, rails, etc., has not been very large from the seaboard. But with the revival of the iron industry came considerable importations of scrap and pig bound to Western mills, and some of rails. Now the mills at Cleveland, Milwaukee and Chicago would get pretty much all their supplies of these by water if the lowest rail rate were \$8 per ton. When the movement of these materials (scrap, chiefly) was mostly to Pittsburgh a better rate could be maintained. Of course it is to the advantage of the railroads to fill their west-bound cars at these rates rather than let them go empty.

Lake and Canal Rates in August.

The Buffalo Commercial Advertiser of Sept. 20 says: "Freight rates are pretty well up and are firm. The prevailing rate from Chicago to Buffalo at present is 5 cents on wheat and 4½ cents on corn. This is a fair freight, but the boatmen are doing better than the vessel-owners, in the proportion. The closing rates last evening, on wheat from Buffalo to New York by canal was 9 cents, and 8½ cents on corn. There is money in these rates, and the result is a number of new boats are being built, thus giving work to the boat-yards and builders. If the railroads are not obtaining paying rates it is because they do not demand them."

In this connection the following exhibit of the average freight on wheat and corn from Chicago to Buffalo by lake; and the average on the same cereals from Buffalo to New York by canal, for the month of August in the ten years named, will be of interest:

Year.	Wheat, Corn, cents.	Canal, Wheat, Corn, cents.
1870	5.0 4.7	9.4 9.3
1871	6.2 5.7	11.8 10.8
1872	9.6 8.8	12.0 11.0
1873	6.5 5.6	10.6 9.6
1874	3.1 2.1	9.0 8.0
1875	2.5 2.2	8.1 7.3
1876	2.2 1.8	5.8 5.3
1877	4.0 3.6	7.0 6.4
1878	3.2 3.0	5.2 4.6
1879	4.6 4.5	6.5 5.9

"For the first time in several years, the transportation people, as a whole, are feeling pretty well satisfied with the situation. The enormous crops of this year, in connection with the general revival of business, are giving carriers about all the business they can conveniently take care of. Vessel owners, boatmen and railroads are all doing a heavy trade, which is shown by the fact that the deliveries at the seven leading seaboard ports from Jan. 1 to Sept. 6, 1879, aggregate the enormous amount of 184,000,000 bushels, which is 21,000,000 bushels in excess of last year's movement, and nearly two and a half times as great as the deliveries in the corresponding months of 1877."

Delaware Fruit Traffic.

Shipments of peaches over the Delaware Railroad up to Sept. 20 were 4,901 car-loads. They have fallen down to 20 car-loads a day and this week will substantially close the season, which has been the best for several years.

RAILROAD LAW.

Claim for Damages—Negligence.

In Richardson against the Louisville, New Albany & Chicago Co., the Indiana Supreme Court held as follows:

The complaint in this action for damages, charges the negligence of appellant, the injury done, and alleges that it happened without fault of appellee. This is sufficient.

The court committed no error in overruling the motion for judgment on the special findings, as they were not irreconcilably inconsistent with the general verdict. The antagonism between them must be apparent on the face of the record beyond the possibility of being removed by any evidence legitimately admissible under the issues before the court can be called upon to give judgment against the party who has the general verdict in his favor.

Contribution to an injury does not necessarily preclude the right to recover compensation for it. The contribution must be negligent. It is contributory negligence that bars the right of action for compensation. It is not negligence to leave windows open, if the passing engines with properly constructed, and at the time properly guarded, smoke-stacks would not endanger her property, unless she had knowledge of the coming of such as were dangerous.

The question of negligence is one of mingled law and fact, to be decided by the court as a question of law, when the facts are undisputed or conclusively proved, but not to be withdrawn from the jury when the facts are disputed and the evidence is conflicting.

Passenger on a Freight Train.

In Creed against the Pennsylvania Railroad Co., in the Pennsylvania Supreme Court, a passenger got into the caboose of a train, in which all but employees of the road were forbidden to ride, and while there was killed through the negligence of the company. It did not appear that he was an employee, or that he had paid fare. Held, that the legal presumption was that he was a passenger traveling for a consideration, and that the company was liable in damages for his death.

Right of Way Over Mortgaged Premises.

In Price against the Weehawken Ferry Co., in the New Jersey Court of Chancery, the Erie Co. had laid a track across the mortgaged premises, acquiring the right of way, not by condemnation, but by a grant from the mortgagor. Held, that the company had no right to have the track, etc., put by it upon the premises, reserved from a sale under foreclosure of the mortgage.

THE SCRAP HEAP.

Railroad Equipment Notes.

H. K. Porter & Co., at Pittsburgh, lately completed a light passenger tank engine for the Grand Haven Railroad in Michigan.

The difficulty between the Ohio Falls Car Co., at Jeffersonville, Ind., and the striking molders has been settled. After a conference with President Sprague the men agreed to go to work again at \$2.25 per day, an advance on the former wages, some minor conditions being made by the company. The company has lately shipped a number of cars to the Lake Erie & Western road in Ohio.

It is reported that the Indianapolis, Decatur & Springfield Company has ordered from the Grant Locomotive Works, at Paterson, N. J., four passenger and six freight engines, all to have 17 by 24 in. cylinders.

The Quebec, Montreal, Ottawa & Occidental shops in Quebec are building 30 flat cars for the Quebec & Lake St. John road. The wheels are made at Bisset's foundry, Quebec.

The Illinois Central shops lately turned out three freight engines with 17 by 24 in. cylinders.

The Danforth Locomotive Works, at Paterson, N. J., are turning out several consolidation engines for the Delaware, Lackawanna & Western road.

The Canada Engine & Machine Works, at Kingston, Ont., have completed five locomotives for the Eastern Extension road in Nova Scotia.

The Buffalo (N. Y.) Car Works, including shops covering twelve acres of ground, have recently been leased by a new company called the Gilbert Car Co., in which capitalists of Buffalo, Troy and New York are interested. The principal officers are: E. C. Gilbert, of Troy, President; Thos. Chester, of Buffalo, Vice-President; James F. Chard, of Buffalo, Secretary; Geo. W. Miller, of Troy, Treasurer and Managing Trustee.

Iron and Manufacturing Notes.

The Ward Furnace, at Niles, O., has been sold to a new concern known as the Thomas Iron Co., and will be started up shortly.

The Cleveland Steam Gauge Co. has orders for 38 Watson forges and blowers to go to Brazil.

Donagel Furnace, at Marietta, Pa., started up last week, under contract to furnish pig iron to the Lancaster Rolling Mill.

The Nimson Forge & Axle Works, at Allentown, Pa., have been sold by the American Life Insurance Co., of Philadelphia, to Messrs. C. Van Brunt and E. P. Boullard, of New York. The exact price has not transpired, but is fixed at the extremely low figure of \$15,000. The works, which have been idle for several years, will be started up at once, with orders to keep them in operation for a year.

The Franklin Iron Works, at Port Carbon, Pa., owned by Mr. Robert Allison, are building several large air compressors for the mining districts in Ohio.

The charcoal iron makers of the United States met last week and formed an association, as noted elsewhere.

The Eames Iron Works, at Titusville, Pa., have begun the manufacture of iron, using petroleum as fuel. At present only blooms are made, but the business is to be extended gradually.

J. M. Foster & Co., of Philadelphia, are building one of their compound gas compressors at West Philadelphia, for the Pennsylvania Railroad, and are constructing a number of their compressed gas governors, and other apparatus recently ordered by the same road.

Bridge Notes.

The Keystone Bridge Co., at Pittsburgh, besides the Cincinnati Southern work still in the shops, has several bridges to build for the Pittsburgh, Ft. Wayne & Chicago, and the large bridge over the Missouri at Plattsmouth, Neb. This will have two spans of 400 ft. each, three of 200 ft. each, and 1,560 ft. of iron trestle in the approaches. The long spans will be chiefly of steel.

The Kellogg Bridge Co., at Buffalo, N. Y., besides other work, has orders for three spans of iron bridge for the Lake Shore & Michigan Southern road; one span for the Connecticut River road, and a draw-span for the Western Counties Railway in Nova Scotia.

Mr. Alfred P. Boller, of New York, has lately completed the bridge over Croton Lake on the New York City & Northern road. It is 480 ft. long and 75 ft. above the water; it has three spans resting on two abutments and two iron piers. Mr. Boller has a further contract for 14 spans of iron bridge and also for 2,000 ft. of timber trestle; also for five high-way bridges over the track, and for three of his pattern of wrought-iron turn-tables for the same road.

The Rise in Prices of Iron Since January.

The price of the best brands of No. 1 anthracite foundry pig-iron in Philadelphia advanced \$1 per ton from Jan. 1 to July 1, 1879. From July 1 to Aug. 1 it advanced \$2. From Aug. 1 to Sept. 1 it advanced \$1.50. From Sept. 1 to Oct. 1 it advanced \$2.50. The total advance from Jan. 1 to the present time has been \$7. The pig-iron market at Pittsburgh has been much more excited than that of Philadelphia, and in consequence prices have advanced more at the former place than at the latter. Gray forge coke pig-iron for instance, has experienced an appreciation in price at Pittsburgh from \$16 per ton on Jan. 1 to \$26 per ton on Sept. 13. The advance in No. 1 anthracite foundry pig-iron in Philadelphia has been from \$18 per ton to \$25.

The price of best refined bar iron in Philadelphia advanced \$2.24 per ton from Jan. 1 to July 1, 1879. From July 1 to Aug. 1 it advanced \$2.24. From Aug. 1 to Sept. 1 it advanced \$4.48. From Sept. 1 to Oct. 1 it advanced \$11.20. The total advance from Jan. 1 to the present time has been \$20.16, or from \$42.56 per ton to \$62.72.

The price of best standard iron rails at Pennsylvania mills advanced \$3 per ton from Jan. 1 to July 1, 1879. From July 1 to Aug. 1 it advanced \$2. From Aug. 1 to Sept. 1 it advanced \$1. From Sept. 1 to Oct. 1 it advanced \$1.50. The total advance from Jan. 1 to the present time has been \$7.50, or from \$35 per ton to \$42.50.

The price of steel rails at Pennsylvania mills advanced \$4 per ton from Jan. 1 to July 1, 1879. From July 1 to Aug. 1 it advanced \$3. From Aug. 1 to Sept. 1 it advanced \$2, and has since remained stationary. The total advance from Jan. 1 to the present time has been \$9, or from \$41 per ton to \$50.

The price of old iron rails in Philadelphia advanced \$4.25 per ton from Jan. 1 to July 1, 1879. From July 1 to Aug. 1 it advanced \$1.25. From Aug. 1 to Sept. 1 it advanced \$1.50. From Sept. 1 to Oct. 1 it advanced 50 cents. The total advance from Jan. 1 to the present time has been \$7.50, or from \$20 per ton to \$27.50.

The price of cut nails in Pittsburgh advanced 10 cents per keg from Jan. 1 to Aug. 1, 1879. From Aug. 1 to Sept. 1 it advanced 35 cents. From Sept. 1 to Oct. 1 it advanced 40 cents. The total Pittsburgh advance from Jan. 1 to the present time has been 85 cents, or from \$2.15 per keg to \$3. The price of cut nails in Philadelphia advanced 5 cents per keg from Jan. 1 to Aug. 1, 1879. From Aug. 1 to Sept. 1 it advanced 20 cents. From Sept. 1 to Oct. 1 it advanced 30 cents. The total Philadelphia advance from Jan. 1 to the present time has been \$1.15, or from \$2.10 per keg to \$3.25.—*Journal of the American Iron and Steel Association.*

Borings.

"Prisoner at the bar," said the judge severely to the train-wrecker, "You have wrecked a passenger-train and killed five innocent people. You have committed a crime of the first order, which ranks you with the —"

"Surr, ye flatter me," interrupts the prisoner, with a gratified smile.

The other day a goat belonging to Mr. Harmon Detrich, of Middleport, Pa., made a light lunch on \$35 of Reading Railroad wages scrip, putting the company that amount ahead. The least it can do is to issue a free pass over the road, though it is not quite clear whether Mr. Detrich or the goat should get the pass.

"I am assured," writes a Canadian who had a claim of 35 cents against the Canadian Southern, to General Passenger Agent Snow, "that you are actuated by the same principles as guide her Majesty the Queen, and that justice to all men is your motto." Mr. Snow says that's what the boys call "taffy."

While an express train was on its way west, running at the rate of fifty miles an hour, just out of Meadville, Pa., the other day, Fred Moss, a boy, fell off a car platform. As he regained his feet he exclaimed, "I've bumped my nose!" and so he had, but when in great anxiety the trainmen ran back to meet the youngster, they found that he was not injured otherwise.

United States Association of Charcoal Iron Workers.

A meeting was held in Philadelphia last week, at which about 30 owners of charcoal iron furnaces, from ten different states, were present. A permanent association was formed with the above title; its objects "are to procure regularly statistics of all manufactures of iron by the use of charcoal as fuel, to provide for the mutual interchange of practical and scientific knowledge and experience in this branch of metallurgy, and to take all proper measures for advancing and protecting the interests of the trade in all its branches."

The following officers were unanimously elected for the ensuing year: President, George B. Weistling, Mont Alto Works, Franklin County, Pa.; Vice-President, Willard Warner, Tecumseh Iron Works, Alabama; Managers, Alfred L. Tyler, Alabama; Robert Valentine, J. C. Fuller and Henry Townsend, Pennsylvania; Charles E. Coffin, Maryland; Charles Campbell, Ohio; M. S. Eifort, Kentucky; S. A. Johnson, New York, and J. Garrett, Tennessee.

Sixty Miles an Hour.

The St. Louis Republican, of recent date, says: "Mr. F. W. Hill, of this city, long a railroad man and late of the Hannibal & St. Joe road, contributes the most interesting figures yet applying to the mile-a-minute controversy. From the facts given it is shown that the speed of a mile a minute has frequently been exceeded by trains on American roads. In the year 1872, Mr. Hill states, Thomas McDonald, engineer of engine No. 36, a five-foot wheel freight engine on the Missouri, Kansas & Texas Railroad, ran from Parsons, Kan., to Sedalia, Mo., a distance of 156 miles, making more than a mile a minute over a greater part of the way. The occasion of this run was to get Phil Sheridan to Sedalia in time to catch the regular train on the Missouri Pacific Railroad in order that he might reach Chicago in time to keep an engagement. Col. R. S. Stevens, General Manager of the Missouri, Kansas & Texas Railway, was on the train with Sheridan. The most remarkable thing about this run was that the engineer did not know 10 minutes before he started that a fast run was expected—in fact, he came in with a freight train late the night previous and expected to go out on freight the next day. At four o'clock a. m. he was called out of bed and not given time to oil his engine properly, as the train was waiting. All railroad men will understand what it means to take an engine off freight and make such a run. The same gentleman also furnishes the following account of fast time made in different years:

"In the year 1855, Albany to New York, Hudson River Railroad, 144 miles, 2 hours and 49 minutes.

"In 1855, New York Central Railroad, locomotive Hamilton Davis, with six cars, 14 miles in 11 minutes.

"In 1850, Paddington to Slough, England, 18 miles in 15 minutes.

"In 1862, Boston to New York, express train via Providence and New London, 230 miles in 5 hours and 27 minutes running time.

"In 1868, Indianapolis to Pittsburgh, 381 miles in eight hours running time, 47½ miles per hour.

"In 1868, Janesville, Wis., to Chicago, 91 miles in 90 minutes. This was done by an engine built at the shops of the Chicago & Northwestern Railroad Company by George W. Cushing. I believe the engine pulled two cars and side-tracked once to let a train pass they met."

Proposals for Wrought-Iron Beams.

Sealed proposals will be received at Rock Island Arsenal, Illinois, by Major D. W. Flagler, United States Ordnance Corps, until Oct. 18, for furnishing on cars delivered at the Arsenal, the following:

About 220,000 lbs. 15-in. wrought-iron I-beams, 200 lbs. to the yard.

About 320,000 lbs. 12-in. wrought-iron I-beams, 125 lbs. to the yard.

About 300,000 lbs. 12-in. wrought-iron I-beams, 170 lbs. to the yard.

About 216,000 lbs. 9-in. wrought-iron I-beams, 85 lbs. to the yard.

About 90,000 lbs. 7-in. wrought-iron deck-beams, 58 lbs. to the yard.

About 126,000 lbs. 4-in. wrought-iron I-beams, 30 lbs. to the yard.

About 21,000 lbs. T-irons and angle-brackets, 3½ by 3½ in., 30 lbs. to the yard.

About one-fourth of the beams must be delivered within 60 days from date of contract, the balance by March 1, 1880. All beams must be of first quality, straight, out of wind and free from flaws, and a portion of them must be cut to exact lengths. Bids must state place of manufacture and be accompanied by the usual manufacturers' charts giving the guaranteed strength and stiffness. Full specifications, bills of beams, lengths, etc., can be had on application to Major Flagler at the Arsenal.

Goose versus Locomotive.

Yesterday morning a flock of geese attacked the Newark train near the Junction. They were led on by an old gander, and for a few moments it looked as though they would throw the locomotive off the track, judging from the unbroken front they presented to the enemy. But the brave descendants of the sentinels that saved Rome proved to be made of two soft material to cope with brass and iron, and the next minute they were spread along the track in the shape of goose hash.—*Puterson (N. J.) Press, Sept. 3.*

OLD AND NEW ROADS.

Animas & Uncompahgre.—This company has been organized in Colorado to build a railroad from Silverton, in San Juan County, in a generally northerly direction, to the summit of the divide between the waters of the Animas and Uncompahgre Rivers; thence down Gray Copper Gulch or some other tributary of the Uncompahgre River, as may hereafter be found eligible, to the Uncompahgre Valley; thence down the valley to its mouth, with branches from the main line to the mineral deposits of Silverton, Ouray and other points as may be deemed expedient. The capital is \$1,000,000.

Atchison, Topeka & Santa Fe.—The enlargement of the Raton Tunnel to its full size was completed last week, track laid through it, and trains have begun to use it. This enables the company to dispense with the switch-back road over the mountain with its very heavy grades, and shortens the distance nearly three miles.

Track has been laid on the Cowley, Sumner & Ft. Smith Branch from Wichita, Kan., southward to Wellington in Sumner County, a distance of about 35 miles. Another branch of this line, to run through Winfield to Arkansas City, is now under construction. Regular trains began to run between Wichita and Wellington last week.

Atlantic & Great Western.—London advises state that the \$2,500,000 prior lien bonds offered by the Reconstruction Trustees were all taken, the applications amounting to \$3,070,000. They were issued at 90 and will bear 6 per cent. interest. When the foreclosure and reorganization are completed they will be a first lien on the road, subject only to the Ohio mortgage, which covers the road in that state.

Atlantic & Southern.—This company has been organized in Iowa to build a branch of the Chicago, Rock Island & Pacific road from Atlantic southward to the Missouri line. Ten miles, from Atlantic to Lewis, will probably be built this fall.

Bangor & Bucksport.—This company is making all preparations to take and operate its road after Oct. 1, when the lease to the European & North American will expire. New passenger and freight stations are being built in Bangor and other necessary arrangements made.

Champaign, Havana & Western.—The committee which bought the Western Extension of the Indianapolis, Bloomington & Western at the foreclosure sale, and organized this company, submit the following statement of their proceedings to the bondholders:

"Your committee on the 9th day of April paid into court the whole purchase money of the road, received a deed for the property, and took possession of the road on the 10th day of May. Under the efficient management of Mr. Wm. H. Smith, the receipts of the road have increased 40 per cent. above the amount credited our road during 1878, when run in connection with the main line. Your committee have rebuilt an engine and rebuilt a bridge, and have expended a good deal of money in laying new ties, and report the road-bed and machinery to be in fair working order. By giving bonds for the eventual payment of the old capital stock taxes, an injunction against levies by the county treasurer was granted for ninety days. During this period the matter was submitted to Judge Drummond. By his decision the extension will pay one-sixth instead of over half of the capital stock taxes on the old Indianapolis, Bloomington & Western, as heretofore levied on our property. We estimate a saving of \$35,000 from this decision. Your committee has had a line surveyed from the present terminus of our road at Havana, Ill., tapping the Mississippi River at both Quincy and Keokuk. A very good route at a grade of not over 37 feet to the mile was obtained. The country through which the proposed route passes is one of the oldest, best settled and most productive in Illinois. Good beds of coal and building stone were found on the route, which ought of themselves to furnish a large amount of freight. Situated as the road is at present, without any western connection, we have no west-bound business, and our cars go westward absolutely empty. We deem it of vital importance that the bridge over the Illinois River at Havana be built at once, during the present low stage of water, and that the road be extended westward at once that we may have through west-bound travel and freight, without

which the road cannot be made a profitable one. We think we shall have funds enough on hand to build this bridge, and ask the bondholders' consent to pay over whatever surplus we may have to the successor company to be used for that purpose. We have of late been much hampered for want of cars to carry the freight offered, and have made arrangements for the use of 200 cars on a mileage basis. Your committee delivered the road into the hands of the successor company, the Champaign, Havana & Western Railway Company, on the first of September, receiving from them as consideration \$350,000 preferred bonds, \$1,100,000 first-mortgage bonds, \$1,650,000 stock. Bondholders can obtain the new securities on application to the National Bank of the Republic, New York.

Chicago & Paducah.—Messrs. John J. McCook, James C. Parrish and Charles Ridgely, Jr., Purchasing Committee, give notice that the plan of reorganization has been completed, and signed by holders of more than three-fourths of the first-mortgage bonds. Bondholders who desire to participate in the benefits of the plan must sign the agreement within 30 days from Sept. 13, and deposit their bonds with the Farmers' Loan & Trust Company within three weeks thereafter. A copy of the agreement ready for signatures may be found at the office of Parrish & Pendleton, No. 120 Broadway, New York.

Chicago, Clinton, Dubuque & Minnesota.—It is reported that negotiations are in progress for a lease of this road to the Chicago, Milwaukee & St. Paul Company, whose lines it crosses at several points. The road extends along the west bank of the Mississippi from Clinton, Ia., to La Crosse, Minn., 178 miles, with a branch from Turkey River, Ia., to Wadena, 44 miles. It is chiefly owned in Boston. The Chicago & Northwestern would seem a much more natural connection for it.

Chicago, Milwaukee & St. Paul.—On the southern branch of this company's Iowa & Dakota Extension the grading is completed from Marion Junction, Dak., west by south to Springfield, 61 miles, and track laid for 15 miles. Tracklaying has been somewhat delayed by difficulty in getting iron. The company offers to build 10 miles beyond Springfield to the mouth of the Niobrara River, if satisfactory arrangements can be made.

A dispatch from Yankton, Dak., says that the company has agreed to build another branch, from Rock Mills, Ia., through Edna to Yankton, about 60 miles, work to be begun at once and finished next spring.

Work is now actively in progress on the extension of the Davenport & Northwestern line from Fayette, Ia., north by west to Ft. Atkinson, about 25 miles. A large part of the line was partly graded several years ago, and on much of it but little work is required.

Chicago, Pekin & Southwestern.—Mr. F. E. Hinckley, late Receiver of this road, was last week arrested and locked up for contempt, having refused to turn over the books and papers of the company and the cash balance in his possession to the successor appointed by the Court. An attempt to release him on a writ of *habeas corpus* was not successful.

A new phase in the controversy over this road has arisen in the filing of an intervening bill by the Farmers' Loan & Trust Company and a majority of the bondholders, asking that the Receiver be discharged and the custody of the property given to the Trustees under the first mortgage.

Chicago, Rock Island & Pacific.—The old mortgage for \$13,500,000, executed by this company Sept. 1, 1866, has been finally satisfied and canceled on the record. The bonds issued under it have all been paid off and replaced by a new issue at a lower rate of interest.

Clarksburg, Weston & Glenville.—This road is now completed to Weston, W. Va., 25 miles southward from the junction with the Baltimore & Ohio at Clarksburg. It is a narrow-gauge road, following the valleys of Lost Creek, Hacker Creek and the West Fork of the Monogahela, and has two short but heavy grades, one of 132 ft. to the mile, and one of 142 ft. It passes through a good country, and follows nearly the main line of road heretofore used for the traffic of a large section of country without a railroad. Weston will be the terminus for a time, but the company purposes building hereafter westward 26 miles to Glenville in Gilmer County.

Corpus Christi, San Diego & Rio Grande.—This road is now completed to San Diego, Tex., 53½ miles westward from the starting point at Corpus Christi, and 13¼ miles beyond the late terminus at Collins. San Diego will probably be the terminus for some time, though arrangements have been made to go on with the extension to the Rio Grande.

Credit Valley.—This road was formally opened for business from Toronto, Ont., to Milton, 30 miles, on Sept. 19. Track is laid 17 miles farther, and is expected to reach Galt, 54 miles from Toronto, in a few weeks. The branch line has track laid to within 12 miles of Orangeville.

Danville & North Carolina.—It is proposed to build a railroad from Danville, Va., southwest to Rockingham, Forsythe, Davie and Iredell counties in North Carolina to Statesville, on the Western North Carolina road, a distance of about 110 miles. The projected line is nearly parallel to the Richmond & Danville and from 30 to 40 miles distant from it. Besides the western connection at Statesville it would have one to Charlotte over the Atlantic, Tennessee & Ohio road.

Dayton, Covington & Toledo.—Track on this road is now reported laid to Versailles, O., 35 miles northward from the junction with the Dayton & Union road, and 41 miles from Dayton. Regular trains are to run to Versailles early next month.

Denver & Rio Grande.—The New York *American Exchange* says: "Mr. Jay Gould has been taking steps to secure control of the Denver & Rio Grande property. When the arrangement above-mentioned (for exchange of stock) was entered into between the Denver & Rio Grande and the Pueblo & Arkansas Valley companies, the stock of the two corporations was placed in the hands of trustees. Most of the stock of the Denver & Rio Grande Company is still held in trust, the stockholders having received trust certificates for all the shares deposited. A contract has been made by Gen. William J. Palmer, President of the Denver & Rio Grande Company, with Mr. Jay Gould and Mr. Russell Sage, whereby they agree to purchase one-half of the outstanding certificates at 92 per cent. of their face value, payable at the option of the purchaser either in cash, Kansas Pacific Railway Company stock at 66, or in 6 per cent. Kansas Pacific consolidated bonds at 88 per cent. A large number of the stockholders are said to have accepted this offer.

"Under the arrangement with the Pueblo & Arkansas Valley Company the Denver & Rio stockholders would have received much less than 92 per cent. of their stock. In view of the present litigation, the result of which cannot be foretold, it is believed by many persons that the offer of Messrs. Gould and Sage is very fair, and that its acceptance will secure valuable assistance for the Denver & Rio Grande Company, which is calculated to help to enhance the value of

the stock unexchanged and still held by the stockholders. The exchange may be made at any time up to Sept. 30. Such stockholders as do not accept Mr. Gould's proposition will be entitled to their rights under the original trust, and will be subject to all the risks of the litigation.

"Upon the rendering of a decision by the courts the Denver & Rio Grande road will be at once delivered to which ever company is declared to be entitled to its control. In the event of the Denver & Rio Grande Company regaining possession of its road, it is considered more than probable that the Gould interest will control its future policy."

Dover & Nashua.—It is proposed to build a railroad from Dover, N. H., eastward to a point on the Nashua & Rochester road between Gonic and Barrington. The distance is about five miles.

Duck River Valley.—A further extension of this road, from Petersburg, Tenn., south 10 miles to Fayetteville, is to be built if stock subscriptions enough can be secured along the line.

Eastern Extension.—This road was last week formally opened for travel from the junction with the Pictou Branch of the Intercolonial at New Glasgow eastward 41½ miles to Murphy's Mills station, one mile from Antigonish town. The road has been built by a corporation known as the Halifax & Cape Breton Railway & Coal Company, which receives from the Dominion government a subsidy of \$7,345 per mile, and the grant in fee of the 52 miles of the Pictou Branch. The road has been substantially built, under supervision of the government engineer; the bridges are of wood, Howe truss, the longest spans being at Sutherland River, 160 feet; French River, James River and Yankee Gut, 80 feet each; Barney's River 75 feet. The stations have been located, but the buildings are not up yet. The road is at present equipped with 5 locomotives, 9 passenger and 4 baggage cars, 20 box, 10 stock, 40 flat and 150 coal cars. The grading on the 30 miles from Antigonish eastward to the Straits of Canso is well advanced.

Erie & Pittsburgh.—For some time past there has been talk of changing the track of this road over a part of its line to the bed of the old canal, now abandoned. Recently the Pennsylvania Company, lessee of the road, has had surveys made, and the estimated cost of changing the track from Espyville, Pa., to a point three miles south of Albion, a distance of 23½ miles, is \$44,670. The lessee has made no proposition as yet, but it is understood that the change will be made, if the local interests which will be better served by the new location of the track will bear a part of the cost.

Evansville & Eastern.—This company has filed articles of incorporation in Indiana to build a road from Evansville northeast to Seymour on the Ohio & Mississippi, a distance of 130 miles. The capital stock is to be \$1,500,000. The incorporation is intended to supersede that of the Evansville & Seymour Company, made a few weeks since.

Galveston, Harrisburg & San Antonio.—Quite an active competition for freights exists between this road and the Gulf, Western Texas & Pacific, the latter seeking to draw freight to its line by reducing rates enough to compensate for the longer haul in wagons required. So far this road has made no material reduction.

A number of tracts of land along the line have been sold to immigrants from England, and the company expects several colonies to settle on its land-grant this year.

Grand Trunk and the Great Western.—A dispatch from London, England, Sept. 23, says: "The directors of the Great Western Railway of Canada have issued a special report on the proposals for fusion with the Grand Trunk Railway, which will be submitted at the meeting of the shareholders on Oct. 2. The report states that the policy of the Great Western has always been peaceful, and that of the Grand Trunk Company aggressive. The inability of the Great Western Company to pay dividends is attributed to the persistent competition of the Grand Trunk road. The directors of the Great Western Company insist on a division of all competitive traffic, and maintain that Sir Henry Tyler's amalgamation proposals are illegal, as no such arrangement would be binding without the sanction of the Canadian Legislature. The Great Western Company is willing to enter into any arrangement which will put an end to the competition, but not on the terms proposed by Sir Henry Tyler."

Great Western, of Canada.—It is reported that this company has concluded an arrangement by which it secures the right to run its cars over the Canada Southern track between Detroit and Toledo. If true, this indicates that the company has given up its intention of joining in the construction of an extension of the Wabash road to Detroit.

Happy Hollow.—This company has been organized to build a short spur from Bechtel, O., on the Snow Fork Branch of the Columbus & Hocking Valley, to the town of Doanville. It will be all in Athens County, and the capital stock is to be \$20,000.

Hudson Tunnel Railroad.—This company having paid the land damages awarded for land taken from the Delaware, Lackawanna & Western road, the injunctions against it have been dissolved without opposition. The company is preparing to resume work on the shaft at the Jersey City end of the tunnel.

Indianapolis, Cincinnati & La Fayette.—A recent circular from the Purchasing Committee appointed by the bondholders says: "The undersigned, Purchasing Committee, take pleasure in announcing that a majority of the holders of the bonds of 1869 and of the funded debt bonds have signed the agreement of reorganization, and it is now in full force. It is believed that decrees for the sale of the property will soon be entered. To fully carry out the plan will require a large sum of money, which, by the terms of the agreement, is to be raised by the sale of certain bonds and stock of the reorganized company, the particulars of which are stated in the agreement, a copy of which we enclose. It is necessary for us to know, at an early date, to what extent these can be sold. Therefore, we hereby offer your proportion of the same to you, and notify you that your option of taking them will expire on the 15th day of December, 1879. All not then taken will be disposed of in accordance with said agreement. No money will be required at present. It will be called in installments, and ample notice given to those who subscribe."

Knoxville & Cincinnati Southern.—At a recent meeting of the directors of this company in Knoxville, Tenn., a committee was appointed to secure subscriptions to the stock in Knoxville, Cincinnati and other places. An agent was appointed to secure the right of way along the proposed line from Knoxville to Emory Gap, and it was resolved to have the line located, and to see if assistance could be secured from the Cincinnati Southern Trustees or the company operating the road.

La Fayette, Bloomington & Muncie.—Under the consolidation by which this company was formed it will issue upon its 201 miles of road \$1,000,000 stock, \$2,500,000

first-mortgage 6 per cent. bonds, and \$1,000,000 income bonds, \$4,500,000 in all, or about \$22,500 per mile. The fixed interest charge will be \$150,000 a year, or \$750 per mile of road.

Lake Erie & Western.—Under the consolidation agreement by which this company succeeds to the Lake Erie & Louisville, it will issue \$1,815,000 first-mortgage 6-per-cent. bonds, \$1,485,000 income bonds and \$3,000,000 capital stock. It has 165 miles of road, 110 miles complete, and 55 miles under construction.

Little Rock, Mississippi River & Texas.—Work has been begun on an extension of the Ouachita Division from Collins, Ark., westward to Monticello, 20 miles.

Louisville, New Albany & St. Louis.—At a recent meeting of the board, it was resolved to let contracts for the grading of the 20 miles of road through Pike County, Ind. The towns on the line in that county have all voted taxes in aid of the road.

Macon & Augusta.—The Georgia Legislature has passed a bill to relieve this company from the payment of the taxes assessed upon its property for the years 1874, 1875, 1876 and 1877. The amount, with accrued interest, penalties and costs was about \$160,000. The bill has been signed by the Governor.

Marine, of Massachusetts.—This company has been organized to build a little railroad about two miles long from the Hingham Steamboat Company's wharf in Hull, Mass., to the steamboat landing near Strawberry Hill. It is intended for pleasure travel in the summer.

Mill River.—A new survey has been made for this road, and it is said that there is some prospect that it will be built. It will be a branch of the Housatonic road, running from Canaan, Conn., to Mill River, Mass., eight miles.

Minneapolis & St. Louis.—Work is actively progressing on the extension of this road from Albert Lea, Minn., to Ft. Dodge, Ia., and the grading is nearly finished to Forest City, Ia., 30 miles. Track is laid from Albert Lea to Nunda, Minn., 10 miles, but work has been much delayed by the difficulty in getting rails as fast as they are wanted. The company expects to run trains at least as far as Forest City this year.

Missouri Pacific.—The New York *American Exchange* says: "Steps have recently been taken to place the trust receipt certificates of the Pacific of Missouri Railroad stock, amounting to about \$4,000,000, on the Stock Exchange list. The stock of the old company amounted to \$7,000,000. The road was foreclosed, and bought in by Commodore Garrison, but it is claimed by some of the stockholders that the transaction was illegal, and about four-sevenths of the stock has been deposited in trust, for which trust receipt certificates have been issued, the object being to bring suit to set aside the sale on the ground of fraud. During the latter part of last week the stock was resurrected at the Stock Exchange, the first sale being made at 2, from which the price advanced during the same day to 5, and has since sold as high as 12. It is claimed that some of the holders of the trust receipt certificates suddenly lost faith in the success of their suit, and concluded to take advantage of the unexpected advance in the price of the stock and sold, but were sorely disappointed on discovering that the trust receipt certificates were not a good delivery for the sale of the stock; hence, it is claimed, the object of placing them on the list."

Monterey & Salinas Valley.—It is reported that this company, which has been in financial difficulties for some time, has sold its road to the Central Pacific Company. It is of 3-ft. gauge, and extends from the Southern Pacific at Salinas, Cal., to the old town of Monterey, a distance of 18½ miles.

Nantasket Beach.—This company has been organized with \$50,000 capital stock, to build a railroad along Nantasket Beach, a popular summer resort near Boston. The proposed line will be four miles long, from the Rockland House along the beach to the Strawberry Hill wharf and Point Allerton.

New York & New England.—The Massachusetts Railroad Commission, having investigated complaints made by residents along the line of this road, about the excessive and annoying use of the steam whistle by its locomotives, has made a report, in which the Commissioners say that since the sixth annual report, when the use of the whistle was discussed, improvements in electric signals have strengthened the argument against the whistle, excepting as a danger signal, and the experience of other roads has been added to that of the Boston & Albany, then referred to, to show the practicability of dispensing with annoying methods of commanding the attention of employes. The board therefore recommends to the managers of the New York & New England Railroad that they discontinue the use of the whistle, within the limits of Boston, and in all compact villages, except as a danger signal, and that, as soon as may be, they provide electric signals for the crossings which are protected by gates or flagmen. And the board hopes that at an early day all grade crossings will be, either voluntarily or in obedience to law, supplied with these or some other effective signals. The board also recommends, on the testimony laid before it, that renewed applications be made to the proper authorities for such a depression of the highway at the crossing of Dudley street as to make it possible for the railroad to cross by a bridge.

It is proposed to build a road from Walpole, Mass., on this road through Wrentham to Valley Falls, R. I., on the Providence & Worcester road, a distance of 11½ miles. It is a revival of an old project, and would give this company a branch with some local traffic, and a line to Providence a little shorter than its present one, by Franklin and Valley Falls. The town of Wrentham has voted to subscribe \$20,000 in aid of it.

Norfolk & Ocean View.—This road has been completed and was last week opened for business. It is about 16 miles long, and is a light suburban line extending from Norfolk, Va., to Ocean View, a popular resort. It is intended partly for pleasure travel, but is also expected to have some traffic from the truck farms along the line.

Northwestern Grand Trunk.—The Detroit *Post and Tribune* says: "The section of road between Flint and Lansing, formerly known as the Chicago & Northeastern, having been transferred to the Northwestern Grand Trunk, was formally taken possession of at noon on the 19th inst., by Major Peck, the General Manager of the latter road. The final action with regard to this division will be taken at a meeting of the board of directors next week. In the mean time, the whole through line is now open and in operation."

A surveying party is now at work from Valparaiso, Ind., westward, locating the extension of the road toward Chicago.

Northern Pacific.—Track on the new Yellowstone Division is now laid for 40 miles out from the starting point at Mandan, Dak., on the Missouri, opposite the old terminus at

Bismarck. The grading is nearly finished for 100 miles out. The coal deposit on the road, 30 miles west of Mandan, is being worked and promises very well. The coal already taken out has been tried on the locomotives, and makes steam very well.

Work has been begun on the depot at Mandan, which is to be a handsome and convenient building.

Cattle from Montana have begun to arrive at Bismarck, and several herds, enough to fill 96 cars, were received there last week, and were to be sent forward this week.

Apparently it is the intention to push work on the Pend d'Oreille Division west of the Rocky Mountains. The company has been advertising in Oregon and Washington papers for 350,000 tamarack or fir ties and 10,000,000 feet bridge lumber to be delivered at the mouth of Snake River during next spring and summer; 50,000 pine ties to be delivered along the line southwest of Spokane Falls during next summer; 5,000,000 feet bridge lumber, to be delivered at Spokane Falls next summer, and 175,000 tamarack or fir ties, to be delivered along the line between Spokane Falls and Lake Pend d'Oreille next autumn.

Ohio & Mississippi.—Receiver King reports as follows for the month of August:

Cash on hand, Aug. 1.....	\$27,609.41
Receipts from all sources.....	390,027.97
Total.....	\$417,637.38
Vouchers prior to Nov. 18, 1878.....	\$11,782.32
Vouchers, pay rolls, etc., subsequent to Nov. 18, 1878.....	266,730.50
	278,512.82

Cash on hand, Sept. 1.....\$139,124.47
The receipts exceeded the disbursements by \$111,515.06 for the month.

St. Joseph & Denver City.—Track is reported laid on the extension of this road from Hasting, Neb., northward to the Union Pacific at Grand Island, a distance of 23 miles. The extension has, it is said, been built and paid for by the Union Pacific.

Pennsylvania.—It is said that the Lewisburg, Centre & Spruce Creek road is to be extended from its present terminus at Spring Mills, Pa., west by south to Pennsylvania Furnace in Centre County, a distance of about 25 miles.

In the matter of the application of the Receiver of the Central Railroad of New Jersey for an injunction to restrain the building of a branch from this road in Jersey City to the National Storage Company's docks at Communipaw, crossing the Central track, the Chancellor of New Jersey has decided to grant the injunction. A company was organized under the general law to build the branch, and the Chancellor holds that it was not legally organized, as it is intended merely as an adjunct to the National Storage Company's property and is really a private concern and not for public use or benefit. The case will probably be appealed.

This company's statement for August shows for that month as compared with August, 1878, on all lines east of Pittsburgh and Erie—

An increase in gross earnings of.....	\$10,117
An increase in expenses of.....	239,771
Net decrease.....	\$229,654

For the eight months ending Aug. 31, as compared with the corresponding period in 1878, the same lines show—

An increase in gross earnings of.....	\$1,218,412
An increase in expenses of.....	960,750
Total.....	\$318,656

For the eight months all lines west of Pittsburgh and Erie show a surplus over all liabilities of \$99,952, being a gain of \$290,622 over the same period in 1878.

Pittsburgh Southern.—This company now has under contract an extension of 15 miles from Virginia Junction, 22 miles from Pittsburgh, southward to Hillsboro on the old National Road. From Hillsboro it is 30 miles due south to the line of West Virginia and 10 miles from the line to Morgantown, the country seat of Monongalia County, and the leading town of that portion of the state. The extension to Morgantown will open up a comparatively new country, and will reach large deposits of iron ore in Greene County, Pa., and in Monongalia County, W. Va., from which, it is claimed, ore of a superior quality can be delivered at the Pittsburgh furnaces at a much lower rate than any they can now obtain. The projectors of the road do not intend to stop at Morgantown, however, but to build on to the Baltimore & Ohio at Grafton and thence southward by Philippi and Beverly to the Chesapeake & Ohio road.

Portsmouth & Dover.—It is probable that the trouble with the Eastern Company over the lease of this road will be referred to arbitrators after all, provided the Eastern will accept the agreement which counsel for the Portsmouth & Dover are now preparing.

St. Louis & Southeastern.—Auditor E. Young's statement for the month of July is as follows:

	St. Louis Div.	Kentucky Div.	Tennessee Div.	Entire line.
Gross earnings.....	\$74,145.60	\$42,587.61	\$10,938.92	\$127,672.19
Expenses.....	40,707.06	25,012.48	11,838.12	77,618.56
Net earnings.....	\$33,438.54	\$17,575.13	\$*899.20	\$50,912.87
Per cent. of expenses.....	55.09	58.71	108.22	60.78

* Deficit.

As compared with July, 1878, the entire line shows an increase of \$32,325.58, or 33.9 per cent., in gross earnings; a decrease of \$2,706.86, or 3.4 per cent., in expenses, and an increase of \$35,032.44, or 33.2 per cent., in net earnings.

This is the last report including all divisions of the road. From Aug. 1 the reports will cover only the St. Louis Division, the Tennessee and Kentucky Divisions having been transferred to the Louisville & Nashville Company, purchaser at foreclosure sales.

St. Louis, Kansas City & Northern.—Track on the new Omaha extension is now laid from Pattonsburg, Mo., northwest to the Iowa line, 74 miles. The track on the Council Bluffs end has reached Malvern, Ia., 35 miles from Council Bluffs, and work is progressing steadily on both ends of the line. It is expected that the two ends will meet before the middle of October.

St. Paul Eastern Grand Trunk.—At a meeting of the directors last week several thousand dollars of stock were reported already taken. Arrangements were made to open subscription books at all the important points along the proposed line. It was resolved to begin work at once on a section of 12 miles, from Chippewa Falls, Wis., to Cadotte Falls, and to complete it as soon as possible.

St. Paul, Minneapolis & Manitoba.—Recently suit was begun by a Mr. Sahlgard, a Dutch bondholder, in the United States Circuit Court at St. Paul, Minn., to determine the legality of the foreclosure and sale by which this company acquired the St. Paul & Pacific lines. Last week two additional bills in equity of a similar character were filed by counsel for A. Meshant and B. H. Strucker, bondholders.

Securities on the New York Stock Exchange.—The following securities have been placed on the lists at the New York Stock Exchange:

La Fayette, Bloomington & Muncie.—Stock, \$1,000,000; first-mortgage 6 per cent. bonds, \$2,500,000; income 7 per cent. bonds, \$1,000,000.

Lake Erie & Western.—Stock, \$3,000,000; first-mortgage 6 per cent. bonds, \$1,815,000; income 7 per cent. bonds, \$1,485,000. This is a reorganization of the Lake Erie & Louisville.

St. Louis & San Francisco.—New 6 per cent. bonds, \$1,100,000, secured by mortgage on the lately-bought Missouri & Western and Joplin roads.

St. Paul & Sioux City.—Common stock, \$4,600,000; preferred 7 per cent. stock, \$4,600,000; first-mortgage 6 per cent. bonds, \$4,600,000. These are the amounts of securities as authorized under the recent consolidation with the Sioux City & St. Paul.

Wabash.—New mortgage 7 per cent. bonds of 1879, amount \$2,000,000.

Columbus, Chicago & Indiana Central.—First consolidated mortgage trust certificates assented to supplementary agreement.

Southeastern, of Canada.—Since the lease of the Montreal, Portland & Boston this company has a line of considerable importance in Southwestern Quebec, serving locally a large district, besides claiming a share of the business between Montreal and the New England cities. Its main line now runs from Newport, Vt., where it connects with the Passumpsic road, northwest 101 miles to Longueuil on the south side of the St. Lawrence, whence connection is made by steam ferry to Montreal. It also owns and works the Northern Division, which leaves the Main Line at Sutton Junction, P. Q., 40 miles from Newport, and runs north to Acton on the Grand Trunk and thence northwest to Sorel on the St. Lawrence at the mouth of the Richelieu; this division is 96 miles long, making 197 miles worked by the company. The Northern Division runs through some of the best farming country in Quebec, and has also a considerable traffic in lumber and bark.

Tennessee Central.—An effort is being made to secure the completion of a section of this road, which was partly graded several years ago. The estimated cost of finishing the 33 miles from Huntingdon, Tenn., on the Nashville, Chattanooga & St. Louis road, westward to Trenton is \$205,000, and it is stated that the Nashville, Chattanooga & St. Louis Company is willing to aid in the work, provided old suits now pending against the Tennessee Central Company can be settled, and a reasonable amount raised along the line.

Texas & St. Louis.—Surveys have been completed for this road from Tyler, Tex., to Corsicana, a distance of 73 miles. A contract has been signed by which the company agrees to have the road in operation from Texarkana to Corsicana by Sept. 10, 1880, in consideration of aid to be received. The extension from Corsicana to Waco is also promised next year.

Utah & Northern.—Track is now laid and trains are running to a new terminus known by the euphonious name of Devil's Dive (which, by way of contrast is not far from Pleasant Valley), 40 miles northward from the late terminus at Camas, Idaho, and 284 miles from Ogden. A few more miles will bring the road into Montana, which is now the only territory in the United States, except Alaska, that has no railroad.

The road is now the longest continuous narrow-gauge line in the United States, though it has not yet so many miles as the Denver & Rio Grande. But the main line of that road is only 250 miles long.

Wisconsin Central.—The Commercial and Financial Chronicle says: "The following are the principal details of the plan proposed for the reorganization of this road. There are to be issued:

Preferred bonds, bearing 5 per cent. interest from Sept. 1879.....	\$400,000
Consolidated bonds, first series.....	3,800,000
Consolidated bonds, second series.....	5,700,000

"The principal of the preferred bonds is to be payable 5 per cent. yearly, in semi-annual payments, beginning June 1, 1881.

"The first series of consolidated bonds will draw interest for three years from July 1, 1880, at 2 per cent., and afterward 5 per cent., payable January and July.

"The second series will draw not over 2 per cent. for three years, and 7 afterward, contingent on the earnings after all prior payments, and also \$30,000 per year for improvements. The first payment is to be July, 1881, and then thereafter each payment will be based on the six months' earnings for the half-year ending six months before. Interest is not to be cumulative.

"The company owes the following debts:

To those who did not fund July 1, 1875, the cash since paid to those who did fund.....	\$71,289
To those who did fund there was due Jan. 1, 1879.....	24,000
To holders of land income notes (a first lien on land sales).....	280,000
For interest on these items before settlement.....	24,710
Total.....	\$400,000

BONDS.

To holders who funded 9 coupons July 1, 1875.....	\$3,594,000
To holders who did not fund July 1, 1875.....	1,091,500
Coupons due July 1, 1875, to Jan. 1, 1879.....	\$1,291,940
Interest on same at 7 per cent. to Jan. 1, 1879.....	180,712
To holders of bonds sold ex ten coupons.....	3,482,500
Less three coupons.....	340,000
Total.....	\$3,142,434

Total.....\$9,300,586

"This indebtedness is to be exchanged 40 per cent. for first series and 60 per cent. for second series, and any surplus of new bonds may be sold for benefit of the company.

"A bond with coupons unfunded will be settled thus:

Face.....	\$1,000.00
Eight coupons, \$35 each, July 1, 1875, to January, 1879.....	280.00
Interest on same.....	34.30
Total.....	\$1,314.30

"Paid by the following:

To represent cash paid on others.....	\$65.31 in preferred bonds.
The 40 per cent. in first series.....	400.59
The 60 per cent. in second series.....	749.39
Total.....	\$1,314.30

"Stockholders are to transfer 95,000 shares of stock to John A. Stewart and Edwin H. Abbott, trustees of first mortgage in trust, to hold till all bonds of consolidated mortgage are getting and likely to get their maximum annual interest, each bondholder being entitled to one vote for each \$100 of bonds held. The present stock of 114,355 shares is not to be increased.

"Land income note-holders are to surrender these notes and be paid the face thereof and 6 per cent. interest, March 1 to Sept. 1, 1879, in preferred bonds."

West Jersey.—An agreement for the consolidation of

the Cape May & Millville with this company has been signed. The change will be merely a formal one, as the Cape May & Millville road is already worked by the West Jersey Company under a perpetual lease, and the lessee owns a controlling interest in the stock and a large part of its outstanding bonds.

West Jersey & Atlantic City.—This company has filed articles of incorporation in New Jersey to build a railroad from Newfield, on the West Jersey road, 30 miles from Camden, west by south to Atlantic City, about 34 miles. In connection with the West Jersey road it would form a third line from Camden to Atlantic City, somewhat longer, however, than either of the two existing roads.

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Concord & Claremont.....	422
Connecticut Minor Railroads.....	492
Conn. & Passumpsic Rivers.....	492
Connecticut River.....	95
Cumberland Valley.....	95
Dakota Southern.....	66
Davenport & Northwestern.....	479
Dayton & Southeastern.....	105
Delaware.....	54
Delaware & Bound Brook.....	248
Delaware & Hudson Canal.....	276
Del., Lack. & Western.....	77
Detroit & Bay City.....	345
Detroit, Lan. & No.....	304
Delaware Western.....	92
Eastern.....	105
Eel River.....	105
Er. & Pittsburgh (Penna. Co.).....	218
Fitchburg.....	24
Flint & Pere Marquette.....	396
Galv., Houston & Henderson.....	75
Georgia.....	304
Grand Rapids & Indiana.....	498
Grand Trunk.....	277
Hartford & New Haven.....	372
Hannibal & St. Joseph.....	152
Hartford, Prov. & Fishkill.....	122
Havana, Rantoul & Eastern.....	273
Houston & Texas Central.....	396
Hunt & Broad Top Mountain.....	92
Illinois Central.....	53
Illinois Minor Railroads.....	489
Illinois Railroad Commission.....	117
Indianapolis, Bloom. & West.....	205
Indianapolis & St. Louis.....	205
Ind. & Vt. (Penna. Co.).....	218
International & St. Northern.....	205
Iowa Minor Railroads.....	454
Iowa Railroad Commission.....	6
Iowa, West. & Ind. (Penna. Co.).....	218
Kan. City, St. Joe & C. Bluffs.....	303
Kansas Pacific.....	121
Kentucky Central.....	320
Lake Shore & Mich. South.....	354
Lehigh Valley.....	201
Leaven. Lawrence & Gal.....	399
Little Miami (P. C. & St. L.).....	305
Long Island.....	12
Maine Central.....	231
Manchester & Lawrence.....	318
Marquette, Houghton & Ont.....	392
Massachusetts Minor Railroads.....	445
Memphis & Charleston.....	179
Michigan Central.....	202
Boston & Albany.....	277
Missouri, Kansas & Texas.....	434
Mobile & G. R. R.....	330
Mobile & Montgomery.....	330
Mobile & Ohio.....	505
Montpelier & Wells River.....	152
Morrill & Essex.....	345
Nashua & Lowell.....	392
Nashville, Chattanooga & St. L.....	401
Natchez, Jack. & Col.....	247
New Jersey Midland.....	180
N. Y. Lake Erie & West.....	43
New York & New England.....	122
N. Y., N. H. & Hartford.....	40
N. Y., Providence & Boston.....	12
New York State Engineer.....	157
Northeastern (S. C.).....	40
Northern Central.....	191
Northern (New Hampshire).....	304
North Pennsylvania.....	457
Ogdensburg & Lake Champlain.....	395
Ohio & Mississippi.....	105
Oregon & California.....	396
Paducah & Elizabethtown.....	392
Panama.....	248
Pennsylvania.....	128
Pennsylvania Company.....	418
Pennsylvania & New York.....	494
Pennsylvania & Ohio.....	348
Philadelphia & Reading.....	30
Phila., Wil. & Baltimore.....	34
Pitts. Cin. & St. Louis.....	205
Pitts., Ft. W. & Chl. (Penna. Co.).....	211
Pitts., Titusville & Buffalo.....	396
Pitts., W. & Ky. (P. C. & St. L.).....	205
Portland & Ogdensburg.....	91
Providence & Worcester.....	292
Quebec, Mont. C. & Ocl.....	422
Richmond & Danville.....	91
Richmond, Fred. & Potomac.....	78
Rock Island & Peoria.....	248
Rome, W. town, & Ogdensburg.....	247
Rutland.....	445
St. Joseph & Denver City.....	395
St. Louis, Alt. & Terre Haute.....	445
St. Louis Bridge & Tunnel.....	405
St. Louis, Iron Mt. & Southern.....	180
St. Louis, Kan. City & Northern.....	102
St. Louis & San Francisco.....	416
St. Louis & Southeastern.....	204
St. Louis, Van. & Terre Haute.....	445
St. Paul & Duluth.....	410
St. Paul & Sioux City.....	490
Sandersville & Tennille.....	445
Scioto Valley.....	318
Sioux City & St. Paul.....	492
South Carolina.....	402
Southern Central.....	248
Southern Minnesota.....	423
Terre Haute & Indianapolis.....	402
Texas & Pacific.....	491
Troy & Boston.....	54
Union Pacific.....	105
United New Jersey.....	505
U. S. Rolling Stock Co.....	77
Utica & Black River.....	262
Vicksburg & Meridian.....	395
Virginia Minor Railroads.....	465
Wabash.....	192
Wash. City, Va. Mid. & Gt. So.....	54
Western Railroad Association.....	44
West Jersey.....	318
Wilmington & Northern.....	348
Wilmington & Weldon.....	68
Wisconsin Minor Railroads.....	506
Wis. Railroad Commission.....	70
Worcester & Nashua.....	105
Worthington & Sioux Falls.....	490

Pullman Palace Car Company.

The statements below are from the report of this company for the fiscal year ending July 31, 1879. At the close of the year the financial statement was as follows:

Liabilities:	
Stock, 50,382 shares.....	\$5,038,200.00
Currency debenture bonds, 8 per cent. \$1,563,000.00.....	1,563,000.00
Currency debenture bonds, 7 percent.....	100,000.00
Sterling debenture convertible bonds, 7 per cent.....	218,000.00
Amount received from sale of old cars leased from Central Transportation Co.....	410,013.08
Surplus, guarantee fund account.....	\$15,728.55
sinking fund account.....	700,000.00
income account.....	3,021,002.42
Total.....	\$12,164,544.05
Assets:	
Cost of 464 cars, equipment and franchises.....	\$8,542,301.84
Car works at Detroit, cost.....	345,823.54
Patents, United States and foreign, cost.....	164,383.43
Furniture and fixtures, 52 offices, cost.....	63,390.53
Real estate in Chicago, cost.....	22,001.00
Amount invested in other car associations controlled and operated.....	2,379,822.54
Construction material and operating supplies, including payments on cars in course of construction.....	280,887.20
Balance of accounts, bills, etc.....	138,400.38
Cash on hand and in bank.....	107,754.44
Total.....	\$12,164,544.05

The 8 per cent. currency debenture bonds show an increase of \$47,000; the 7 per cent. bonds a decrease of \$404,000, a net reduction of \$357,000 in the funded debt. The annual interest charge is \$156,630, or \$338 per car per year. The sinking fund was increased by \$100,000. The surplus accounts had credits and charges as follows:

to	counts had credits and charges as follows:	
rt	Surplus accounts, July 31, 1878.....	\$3,488,951.09
at	Net surplus for the year, as below.....	326,402.68
in-	Total.....	\$3,815,353.77
ch-	Less written off for old cars sold, re-	
is	placed, etc.....	\$29,316.11
	Less loss by C. W. Angell, including ex-	
	penses of capture, rewards, etc.....	48,707.29
		78,023.40

NEW YORK MINOR RAILROADS IN 1878.

NAME OF ROAD.	PROPERTY.				LIABILITIES.				TRAFFIC.				EARNINGS.				Interest and rentals.	Dividends.
	Miles owned.	Miles leased.	Locomotives.	Passenger train cars.	Stock.	Bonds.	Other debt.	Train mileage.	Passenger mileage.	Tonnage mileage.	Rate per passenger per mile.	Rate per ton per mile.	Gross earnings.	Expenses.	Net earnings.	Gross earnings per mile.		
Adirondack.....	60	3	7	55	\$4,263,000	6,000,000	1,971,735	50,428	603,574	458,545	4.00	3.00	\$68,735	\$62,240	\$6,495	\$1,146	\$108	91
Bath & Hammondsport.....	9	2	4	10	75,350	38,000	1,500	18,864	134,760	40,000	4.00	3.00	11,222	5,905	5,317	1,247	584	53
Brooklyn, Bath & Coney Island.....	7	7	27	3		80,000		73,792	1,167,740		2.86	2.86	52,524	36,827	15,697	7,503	2,242	70
Brooklyn, Flatbush & Coney Island.....	7	5	40	8	474,845	604,000	100,866	64,015	4,190,274	8,845	2.50	2.50	135,346	59,853	75,493	19,335	10,785	44
Brooklyn & Rockaway Beach.	4	3	11	8	147,500	58,000		28,560	180,175		2.86	2.86	20,502	19,483	1,019	5,126	255	65
Buffalo & Southwestern (nine months).....	67	0	11	137	943,800	1,099,707	197,066	102,729	3,770,017	9,554,156	3.00	3.00	221,050	171,652	49,398	3,323	746	77
Buffalo, New York & Philadelphia.....	121	25	29	1,049	1,008,050	3,807,500	711,339	509,791	3,823,076	60,122,768	3.00	3.00	864,869	414,419	450,450	7,147	3,425	48
Cayuga Southern.....	38	1	2	6	425,000		30,190	77,160	614,807	4,980,338	3.00	3.00	46,001	74,380	\$27,770	1,220		160
Cayuga & Susquehanna.....	35	0	6		589,110			75,544	469,707	1,448,964	4.00	4.00	51,285	67,470	\$10,185	1,465		132
Cazenovia, Canastota & De Ruyter.....	29	2	4	12	614,000	600,000	7,221	28,650	149,472	96,050	5.00	5.00	16,063	18,740	\$2,677	554		116
Clove Branch.....	4	1		30	150,000		7,500	5,763	6,312	246,997	3.00	3.00	19,885	16,763	3,122	4,971	781	84
Cooperstown & Susquehanna Valley.....	16	2	3	11	308,405	136,000	2,668	20,483	371,918	159,110	5.00	5.00	33,230	17,377	15,850	2,077	991	52
Corning, Cowanesque & Antrim.....	71	13	8	750	1,000,000	500,000		194,138	924,768	11,479,710	3.00	3.00	365,920	252,162	113,758	5,154	1,602	60
Dunkirk, Allegheny Valley & Pittsburgh.....	91	7	12	90	1,300,000	3,200,000	186,523	408,588	2,503,828	20,125,653	3.00	3.00	331,778	332,423	\$645	3,616		101
Elmira State Line.....	7	44			90,200	160,000		243,040	845,150	16,948,754	3.50	3.50	316,523	188,701	127,822	6,206	2,506	60
Fonda, Johnstown & Gloversville.....	10	16	5	5	300,000	300,000	34,647	71,939	1,106,437	430,024	4.63	4.63	102,268	61,885	40,383	3,933	1,630	61
Geneva, Ithaca & Sayre.....	75	12	10	222	850,000	600,000	192,249	328,040	1,764,415	23,431,611	3.00	3.00	264,966	181,134	83,832	3,533		106
Greene.....	8	2	1	1	200,000	200,000	86	23,687	261,496	1,326,696	3.00	3.00	35,715	23,275	12,440	4,494	1,555	65
Greenwich & Johnsonville.....	14				130,808	185,550	48,388	17,528	207,116	128,124			27,040	14,865	12,175	1,931	870	55
Harlem Extension, South Lake Champlain & Moriah.....	58	2	3		200,000	73,000	215	26,649	557,520	1,648,400	3.00	3.00	58,523	59,441	\$918	1,006		102
Middleburg & Schoharie.....	8	0	3	134	85,000	18,000	200	15,288	3,328	1,876,224	6.67	6.67	130,824	42,154	88,670	16,353	11,084	32
Middletown & Crawford.....	10				122,300	80,300		17,718	139,200	70,233	3.00	3.00	23,756	14,719	9,037	2,736	904	63
Newburg, Dutchess & Connecticut.....	59				887,350	1,314,500	191,958	110,001	712,299	2,319,610	2.63	2.63	135,823	120,002	15,821	2,302	100	95
New York & Manhattan Beach.....	5	18	11	78	500,000	820,000	45,000	181,874	1,137,489	126,390			298,147	159,280	138,867	12,963	6,638	51
Olean, Bradford & Warren.....	13	3	6	118	100,000			12,020	670,565	207,710	5.00	5.00	48,969	28,643	20,326	2,767	1,594	53
Ontario Southern.....	34	3	4	42	538,300	604,300	41,314	63,261	334,478	828,872	3.00	3.00	30,780	38,907	8,117	906		136
Oswego & Syracuse.....	35	14	19	206	1,320,400	401,500	43,768	113,836	2,390,564	6,703,218			288,183	219,173	79,010	8,234	2,257	70
Port Jervis & Monticello.....	24	2	2	7	724,227		16,000	33,390	377,096	277,640	3.00	3.00	27,554	24,351	3,203	1,165	150	87
Poughkeepsie, Hartford & Boston.....	42	5	4	60	850,000	535,000	41,035	70,603	736,372	484,822			56,297	67,418	\$11,121	1,198		120
Rhinebeck & Connecticut.....	35	7	6	180	614,500	820,000	71,498	53,212	159,059	2,055,343	3.00	3.00	55,951	54,788	1,163	1,332	28	98
Rochester & State Line.....	108	11	12	232	22,094	2,178,400	109,387	212,698	1,830,272	12,124,522	3.00	3.00	214,445	132,042	82,403	1,086	763	62
Rome & Clinton.....	13				275,000	26,000	9,000	16,092	220,463	314,607	3.00	3.00	18,193	22,321	\$4,128	1,400		123
Schoharie Valley.....	4	2	2		100,000	34,500	1,000	15,560	142,500	51,500	5.00	5.00	14,018	6,621	7,397	3,505	1,849	47
Silver Lake.....	7	2	2	1	120,127	15,000	467	10,600	92,000	48,726	5.00	5.00	9,343	4,861	4,482	1,335	640	32
Skanateles.....	5	3	2	5	77,800	35,000	3,000	12,600	98,576	50,567	6.00	6.00	16,940	14,887	2,053	3,388	411	88
Staten Island.....	13	4	9	7	210,000	300,000	5,300	71,230	2,717,424	10,190,420	3.00	3.00	253,011	205,777	47,234	3,388		81
Sterling Mountain.....	8	2	1	144	80,000	350,000		6,000	4,980	243,693	3.00	3.00	21,975	17,803	4,172	2,747	522	81
Syracuse, Binghamton & New York.....	81	13	11	380	2,004,000	2,119,525	140,382	543,817	3,956,704	50,896,838			593,024	413,943	179,081	7,322	2,211	70
Syracuse, Chenango & New York.....	43	4	8	00	861,400	261,400		84,540	1,542,823	759,319	3.00	3.00	80,581	60,516	11,065	1,874	257	86
Syracuse, Geneva & Corning.....	57				1,162,400	1,000,000	401,066	174,702	1,023,243	14,245,250	3.00	3.00	218,024	144,657	73,367	3,825	1,278	66
Utica & Delaware.....	74	7	12	131	1,152,100	1,478,600	57,982	104,753	1,780,372	1,548,887			108,158	136,497	31,661	2,272	426	81
Utica, Chenango & Susquehanna Valley.....	98	17	21	3	4,000,000		146,103	265,090	4,619,894	11,437,325	3.00	3.00	411,353	279,303	132,050	4,197	1,347	68
Utica, Clinton & Binghamton.....	31	2	5		640,326	800,000	53,500	46,214	859,811	1,490,872	3.00	3.00	78,100	59,522	18,578	2,519	509	70
Utica, Ithaca & Elmira.....	60	27	4	13	2,000,000		211,252	2,172,627	4,126,622			147,542	151,454	\$3,912	1,586		103	
Valley.....	12				750,000		93,064	76,875	638,933	10,190,420	3.00	3.00	154,409	83,622	70,787	12,875	5,906	64
Wallkill Valley.....	35	2	5	22	330,000	532,000	60,054	77,686	945,246	1,096,277			84,736	66,323	18,413	2,568	558	78
Warwick Valley.....	10				225,000	60,000		17,160	200,870				41,310	22,658	18,652	4,131	1,565	62

* Deficit.

The statements above are from the reports made to the New York State Engineer for the year ending Sept. 30, 1878, and include all roads whose reports have not been otherwise given, or included in lessees' reports.

The Delaware, Lackawanna & Western operates the Cayuga & Susquehanna; Greene; Oswego & Syracuse; Utica, Chenango & Susquehanna Valley roads under lease; the Utica, Clinton & Binghamton and the Rome & Clinton under agreement, and the Syracuse, Binghamton & New York as controlled. The Fall Brook Coal Company operates the Corning, Cowanesque & Antrim, and the Syracuse, Geneva & Corning. The Tioga Company, of Pennsylvania operates the Elmira State Line road. Train service is furnished to the Warwick Valley by the Erie.

The Bath & Hammondsport, the New York & Manhattan Beach and the Olean, Bradford & Warren are of 3-ft. gauge. The Port Jervis & Monticello, the Sterling Mountain, the Wallkill Valley and the Warwick Valley are of 6-ft. gauge; the rest of standard gauge.

The Brooklyn, Bath & Coney Island has no stock, being owned by a single individual, who bought it under foreclosure of second mortgage.

Earnings of Staten Island road include those of steam ferry between Staten Island and New York.

048.92. The amount invested in other car associations showed a reduction of \$13,315.15 during the year. The total amount of permanent investments, cars, shops, property, other companies, etc., was \$11,517,493.54, against \$11,478,654.42, an increase of \$38,839.12 during the year.

The income account for the year was as follows:

	1878-79.	1877-78.	Inc. or Dec.	P. c.
Earnings (leased lines included).....	\$1,705,796	\$1,700,136	D. \$3,440	0.2
Proportion of earnings of other car associations controlled and operated.....	453,940	443,194	I. 10,746	2.4
Patent royalties.....	8,500	8,500		
Profit and loss, including interest, discount and exchange.....	28,490		I. 28,490	
Total receipts.....	\$2,196,735	\$2,160,830	I. \$35,905	1.7
Working expenses, including legal expenses, taxes and insurance (leased lines included).....	610,310	577,743	I. 32,565	5.6
Maintenance of upholstery and bedding (leased lines included).....	164,542	150,188	I. 14,354	9.6
Proportion of working and maintenance, controlled lines.....	157,918	150,645	I. 7,273	4.8
Rebuilding association cars.....	25,000		I. 25,000	
Total expenses.....	\$958,460	\$878,578	I. \$79,882	9.1
Net earnings.....	\$1,238,290	\$1,282,252	D. \$43,963	3.4
Rental of leased lines.....	264,000	264,000		
Profit and loss.....	16,716		D. 16,716	
Total charges.....	\$264,000	280,716	D. \$16,716	6.0
Profits applicable to capital.....	\$974,290	\$1,001,546	D. \$27,267	2.7

The earnings for the year, excluding royalties and receipts from controlled lines, were \$3,676 per car per year; the working and maintenance expenses \$1,670, leaving the net earnings \$2,006 per car per year. The working and maintenance expenses were 45.42 per cent. of earnings. The balance of profit from controlled lines was \$296,022.08, or 12.4 per cent. on the amount invested therein.

The disposition of the balance of profit was as follows:

Balance of profit as above.....	\$974,290.00
Interest on bonds.....	\$105,890.00
Dividends on stock, 8 per cent.....	471,056.00
Balance of account for rebuilding and remodeling cars.....	10,920.41
	647,866.41

Surplus to credit of income account..... \$328,402.08

This surplus is equivalent to an additional 5½ per cent. on the stock.

The direct earnings from operations showed a trifling increase, which the receipts from controlled lines and miscellaneous accounts converted into a small gain in gross receipts. All classes of expenses, however, showed a considerable increase, so that the net receipts fell off about 8½ per cent. They were still large enough to pay the usual 8 per cent. dividends and to increase the surplus, after charging depreciation and the loss by the Angell defalcations by an amount equivalent to 4½ per cent. more on the stock.

Burlington & Missouri River in Nebraska.

At the close of last year this company worked its own line from Plattsmouth, Neb., to Kearney Junction, 191 miles; the Omaha & Southwestern from Omaha to Oread, 17 miles, and from Oread to Beatrice, 80 miles; the Nebraska Railway, from Nemaha to York, 136 miles; and the Republican Valley road, from Hastings to Red Cloud, 41 miles. The last three lines are nominally leased, but substantially owned. The Republican Valley and four miles of the Nebraska road were added during the year and the Republican Valley has been extended 28 miles since its close. The following statements have been published for the year ending Dec. 31, 1878.

The equipment consists of 29 engines; 16 passenger, 7 combination and 5 baggage, mail and express cars; 1,043 box and 187 platform cars.

The company has a land grant, of which 2,453,750 acres have been certified to it. From it there were sold in 1878 no less than 514,098 acres, for \$2,620,511, the sale of 251,026 acres for \$1,309,454 being for cash or short credit, and 263,072 acres for \$1,411,057 on ten years' time. Of the acres sold, 391,930 were what the company calls South Platte lands, lying with 20 miles of the road, and 122,168 acres North Platte lands, lying from 20 to 50 miles north of the Union Pacific.

The general account was as follows:

Stock (\$22.028 per mile).....	\$9,390,800.00
Bonds (\$24.345 per mile).....	10,935,300.00
Bills payable, unpaid coupons, etc.....	422,285.10
Suspense account.....	462,518.65
Land grant.....	687,746.80
Voluntary contributions.....	203